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The Atlantic

HOLLY BRUBACH ON FASHION / ROBERT REICH ON TECHNO-NATIONALISM

IN HARM'S WAY

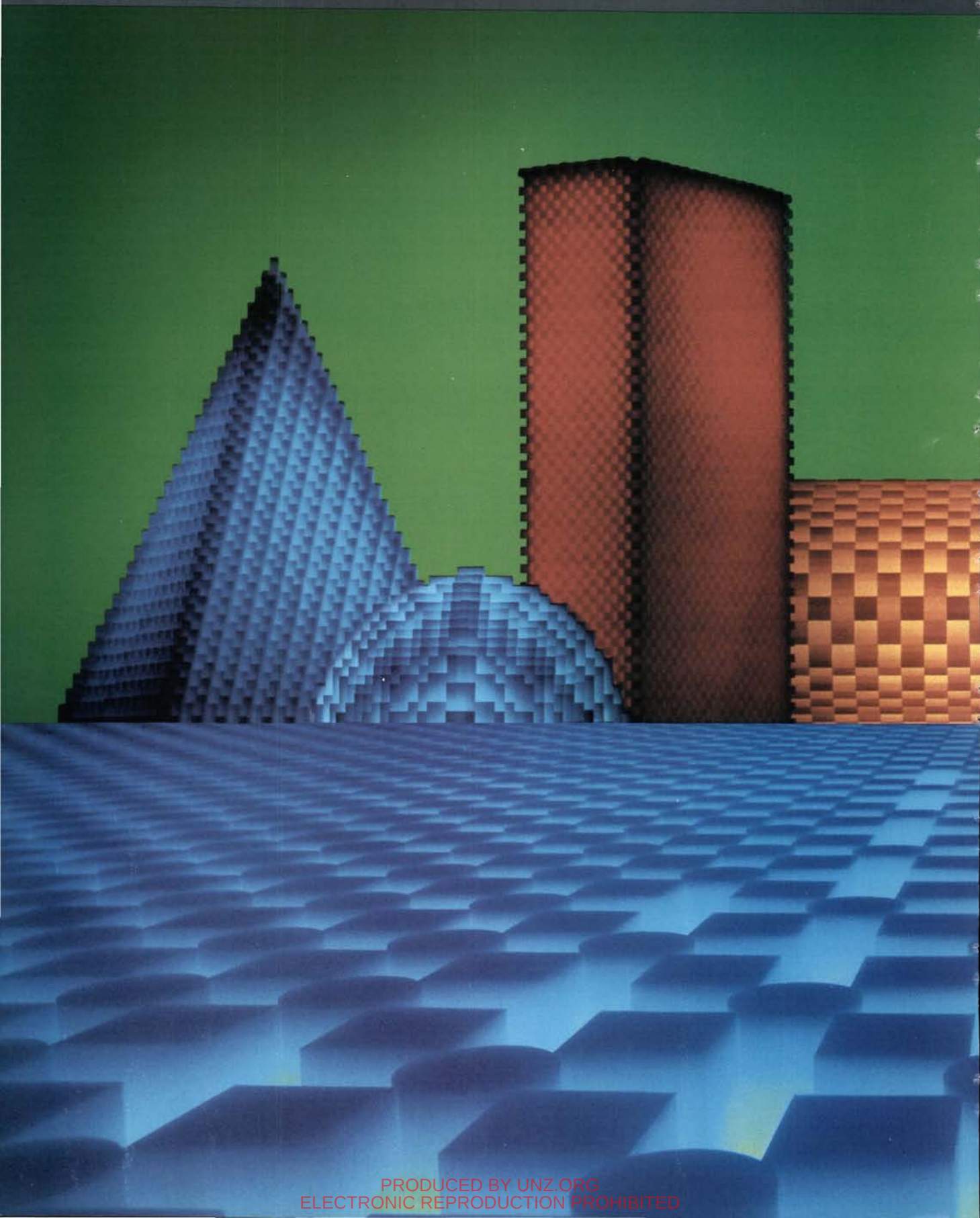
America's scary, and expensive, new naval strategy

BY JACK BEATTY



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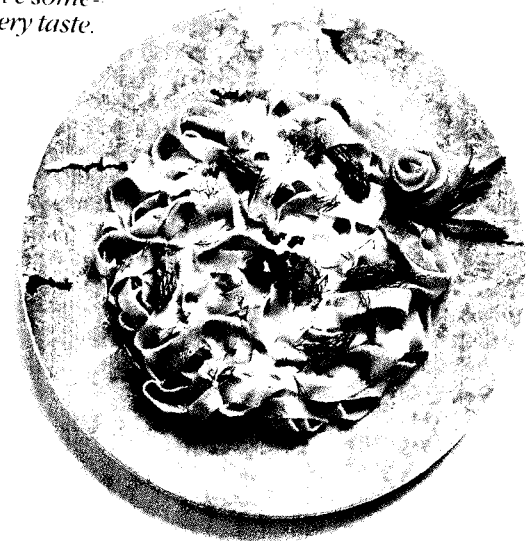
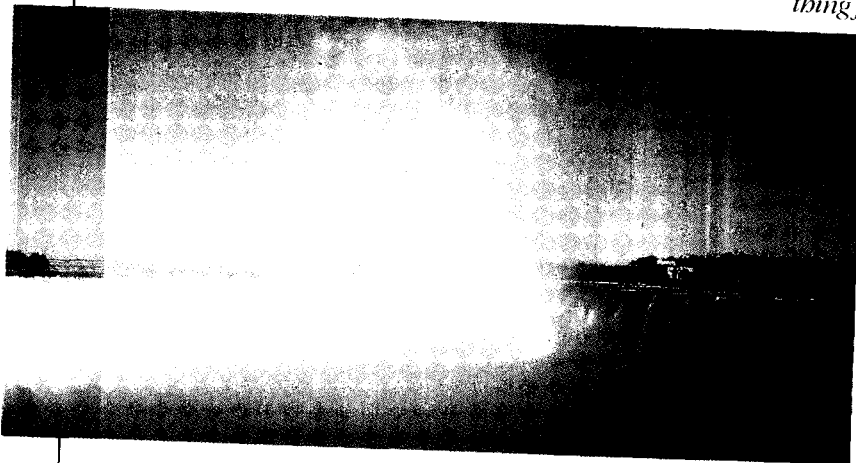


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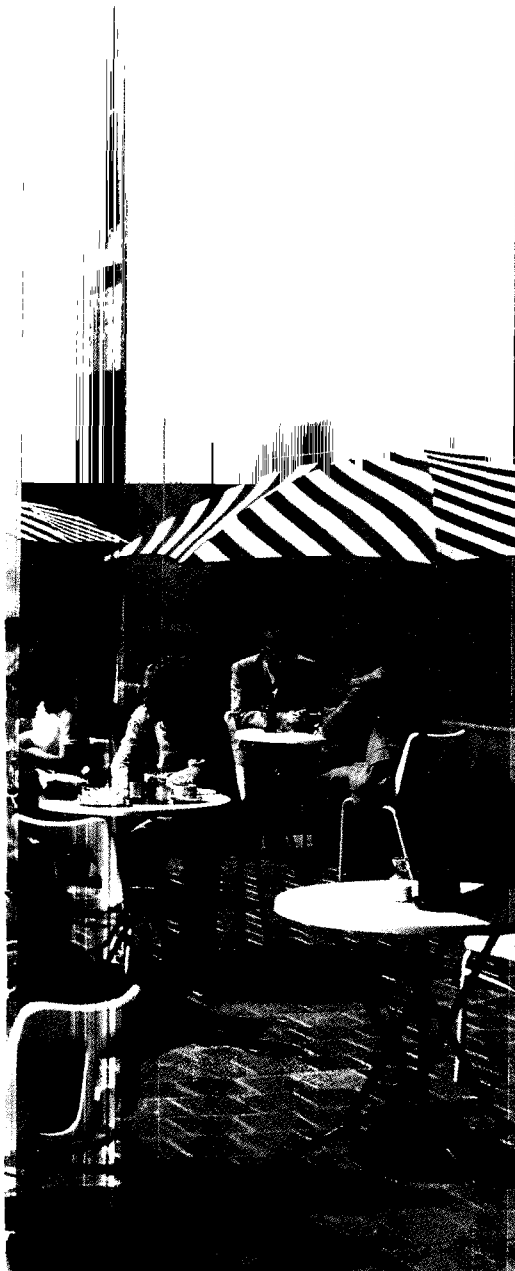
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The World Next Door

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—Mrs. James S. Brady—

“Help me fight the National Rifle Association.”

“Six years ago, John Hinckley pulled a \$29 revolver from his pocket and opened fire on a Washington street. He shot the President. He also shot my husband.

I’m not asking for your sympathy. I’m asking for your help.

I’ve learned from my own experience that, alone, there’s only so much you can do to stop handgun violence. But that together, we can confront the mightiest gun lobby—the N.R.A.—and win.

I’ve only to look at my husband Jim to remember that awful day...the unending TV coverage of the handgun firing over and over...the nightmare panic and fear.

It’s an absolute miracle nobody was killed. After all, twenty thousand Americans are killed by handguns every year. Thousands more—men, women, even children—are maimed for life.

Like me, I know you support *stronger* handgun control laws. So does the vast majority of Americans. But the National Rifle Association can spend so much in elections that Congress is afraid to pass an effective national handgun law.

It’s time to change that. Before it’s too late for another family like mine... a family like yours.

I joined Handgun Control, Inc. because they’re willing to take on the N.R.A. Right now we’re campaigning for a national waiting period and background check on handgun purchases.

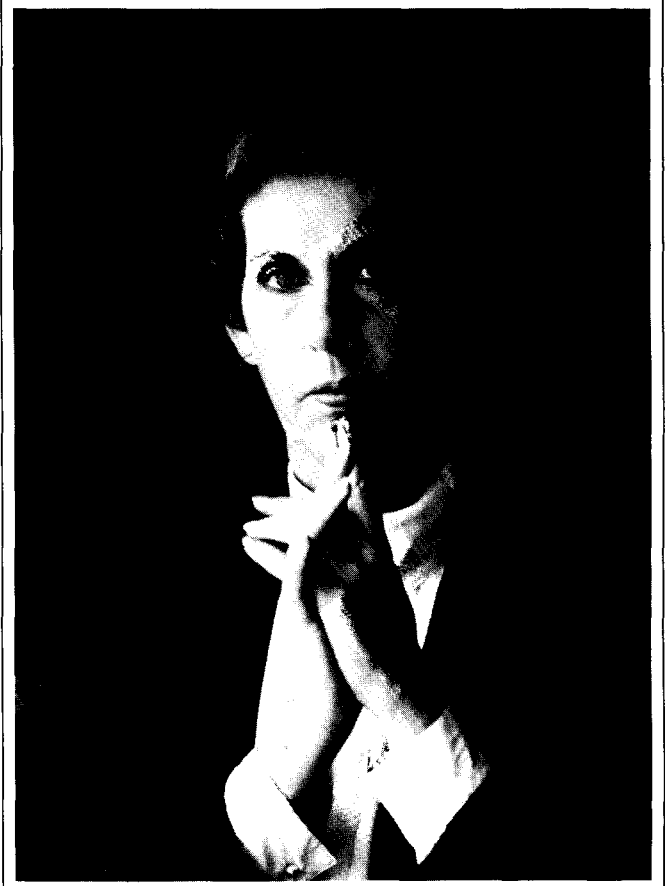
If such simple, basic measures had been on the books six years ago, John Hinckley would never have walked out of that Texas pawnshop with the handgun which came within an inch of killing Ronald Reagan. He lied on his purchase application. Given time, the police could have caught the lie and put him in jail.

Of course, John Hinckley’s not the only one. Police report that thousands of known criminals buy handguns right over the counter in this country. We have to stop them.

So, please, pick up a pen. Fill out the coupon. Add a check for as much as you can afford, and mail it to me today.

It’s time we kept handguns out of the wrong hands. It’s time to break the National Rifle Association’s grip on Congress and start making our cities and neighborhoods safe again.

Thank you and God bless you.”



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LETTERS TO THE EDITOR

MORE ON AIDS

Katie Leishman's "Heterosexuals and AIDS" (February *Atlantic*), an incisive, compelling exploration of one of the most profound issues of our time, is weakened by misstatements of fact and an excessively pessimistic view of the possibility of educating people about AIDS.

The suggestion that California, acknowledged as one of the better states at reporting AIDS, may have an additional sixty cases for each one reported is simply preposterous. Everyone knows that AIDS, like all reportable diseases, is underreported, perhaps by as much as 20 percent. But if only one in sixty cases were being reported, we would see mortality assigned to other causes of death increasing by astronomical percentages; that hasn't occurred. Ironically, case surveillance is the one thing that government has done well throughout the AIDS epidemic.

Ms. Leishman states that venereal diseases are "a certain co-factor in facilitating transmission of HIV." Some evidence suggests this is true, but none of the many putative co-factors proposed to date have been documented conclusively, and many early theories have been discarded. It would also be quite unusual for it to "take as long as a year to seroconvert" after exposure to HIV. Seroconversion may occur as soon as two weeks and rarely, if ever, later than six months after exposure.

The article's appraisal of the effects of AIDS or education about AIDS on the behavior of gay men rests on a peculiar reading of statistics and limited research findings. Yes, some men have not changed their behavior sufficiently to avoid becoming infected or infecting others. But the preponderance of information supports the notion that sea changes in behavior and the social norms supporting that behavior have occurred in the gay community. Gonorrhea and HIV-seroconversion rates and the proportion of diagnosed AIDS cases among gay and bisexual men have declined dramatically over the past five years. It is interesting that these decreases have occurred in both high- and low-prevalence areas. The good news is that the overwhelming majority of gay men are unin-

fected, and with education and social support they can retain that status.

RICHARD D. DUNNE

Gay Men's Health Crisis

New York, N.Y.

Three cautionary facts for readers of Katie Leishman's "Heterosexuals and AIDS" who might be tempted to follow the misguided example of the woman with the bisexual ex-lover who was "planning to donate blood in order to ascertain her [AIDS virus] antibody status":

1. While the screening test for HIV ("the AIDS virus") used by blood banks is one of the best tests we have ever had, *it is not infallible*.

2. If it fails and you are indeed carrying the virus, your blood is *almost certain* to infect whoever receives it.

3. To give blood you will have to *lie*—sign a statement that you are at no known risk for AIDS, as part of the donor-health screening process on which blood safety depends even more, perhaps, than on lab testing.

Anonymous testing is usually available at public-health facilities. Use of this alternative will create no record that a test was even sought.

Taking the test *twice*, six months apart, should get around its two known problems: besides random errors, to which all tests are vulnerable, the HIV screening tests are often unable to detect evidence of the virus in the first three months after infection.

DAVID EISENMAN

*Association for Improvement
of Volunteer Blood Donation*

Champaign, Ill.

Ms. Leishman cites the "strange phenomenon" that "many people who know they are at extraordinarily high risk nevertheless dispense with even minimal precautions." Her observation is correct, and it exposes the *myth* promoted by many that sex-related education is a positive influence toward good public health. We are fortunate that we have national precedents to put this myth in perspective.

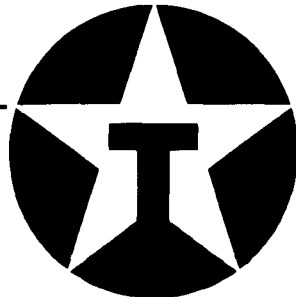
A first precedent is the spread of syphilis, another communicable disease. During the Second World War syphilis was considered a nationwide epidemic,

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1986



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Updike is a
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One of the most important novelists of the 20th century, John Updike has written one best-seller after another—including *The Centaur*, *Rabbit Run* and *The Witches of Eastwick*. In addition to Updike, The Franklin Library—in 1986—published Signed First Editions of important new books by Louis Auchincloss, Robert Ludlum, Joyce Carol Oates, Alistair Cooke and Shirley Ann Grau.

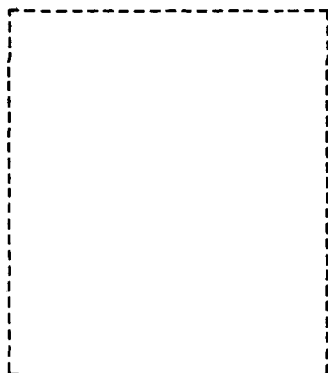
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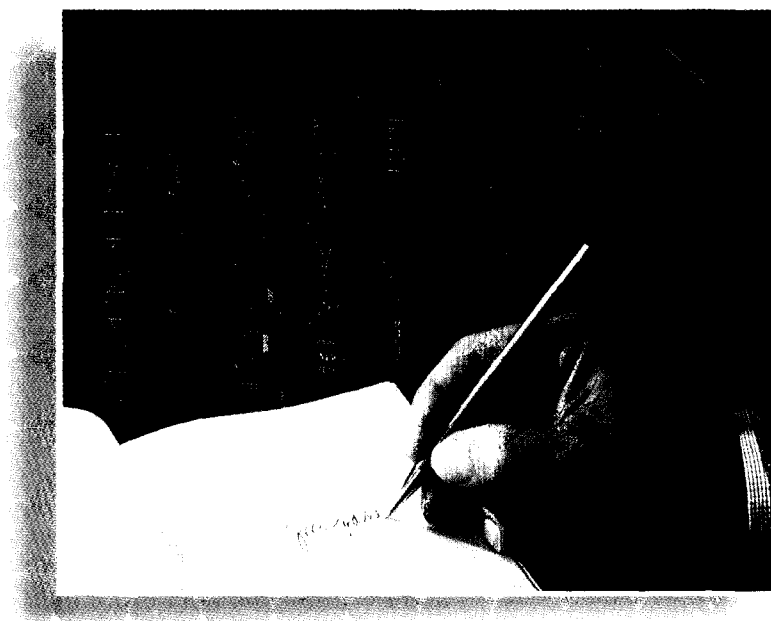
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as AIDS is now. Syphilis was incurable and often fatal. In 1942 all 20 million U.S. citizens in the military had access to condoms, all were encouraged in their use, all were provided with sex education, and all were regularly inspected for infection after returning from leave. In spite of this herculean effort, the rate of syphilis rose to a level of 400 cases per 100,000—the highest rate ever recorded in this country.

Dr. Stan Weed, of the Institute for Research and Evaluation, provides a second precedent from which to view the efficacy of sex-related education. For over two years now Dr. Weed has been analyzing the correlation between federal expenditures on family-planning clinics and the rate of teen pregnancies, births, and abortions.

Dr. Weed writes, "In 1971, the annual national expenditure (federal, state and local money) for these clinics was \$11 million, and 300,000 of their clients were teenagers. By 1981, the numbers were \$442 million and 1.5 million clients. In 1972, the pregnancy rate for 15- to 19-year olds was about 95 per 1000. In 1981, the rate was 113 per 1000 in that same age category. In that time period, when the size of that teen population was little changed, teen abortion went from 190,000 to 430,000. One must reconcile the rise in teen pregnancies with major program efforts that saw a five-fold increase in teenage clients and a twentyfold constant-dollar increase in funding."

The bottom line of Dr. Weed's findings is that increased education curbed only *births*, not pregnancies, and gave rise to a multitude of youngsters having abortions.

Why is it that education only aggravates the problems associated with sex-related issues? Presumably we are an educated nation. We appreciate the significance of education in furthering the cause of America and have indelibly recorded this in our history books for posterity to reflect on. Why, then, is education so schizophrenic? The answer is basic to our human nature. Whenever education is pitted against appetite, education will almost always fall short of its purpose. Sex education fuels the fires of sexual appetite. In the case of AIDS, "education" has been translated into information on "safe sex." The lesson is not only that a moral education assumes that promiscuity is intrinsically flawed but also that even a moral education is battling against unfavorable odds.

The current approach of treating AIDS as a civil-rights issue is misdirected, and the American public knows it. I have been criticized for "politicizing" the issue. And the issue is politicized—but not because of politicians. AIDS is a political issue for one reason alone: public-health officials have failed to treat it as a public-health issue, and when they abrogate their professional mandate, somebody must assume it.

WILLIAM E. DANNEMEYER
Member of Congress
39th District, California

Katie Leishman writes that "it seems only a matter of time" before cases of AIDS among Catholic priests will "compel some acknowledgment from the Church of a reality it has chosen to ignore." Yet she offers the reader almost no evidence of the "reality" she finds so compelling.

Her evidence—anecdotes from two unnamed "health officials"—is surprisingly flimsy, especially in an article peppered with published studies and comments from prominent experts. The estimate by one official that one third of Catholic priests under forty-five are homosexuals, and that most are sexually active, is particularly reckless. Who is this official? On what evidence do he and his colleague base this estimate? It is a slanderous and unfounded allegation, beneath *The Atlantic's* usual high standards.

JOHN FRANCIS REILLY
Woodlyn, Pa.

Katie Leishman failed to report that blacks and Hispanics already account for nearly 90 percent of heterosexual AIDS cases. The media generally persist in ignoring this fact, although it has been noted by the Centers for Disease Control and the National Academy of Sciences.

More than half of the 1,164 cases of heterosexual AIDS reported have occurred in Haitians. The important difference between Haitian and non-Haitian AIDS cases is that the Haitian men outnumber the Haitian women by more than 4 to 1 and the non-Haitian women outnumber the non-Haitian men by 4 to 1. No expert I have spoken to has been able to explain satisfactorily why Haitian men should appear to be more at risk for heterosexual AIDS than non-Haitian men.

PETER PATRICK
Washington, D.C.

Katie Leishman replies:

As I wrote, "No one knows how many people are infected but asymptomatic." According to a report last year of the California State Health Officers, in California sixty cases of infection with the AIDS virus occur for every diagnosed case of AIDS—not sixty undiagnosed cases of AIDS, although I can see how my wording allowed the interpretation that Mr. Dunne drew.

It is true that many early theories about co-factors have been disregarded, but the theory involving sexually transmitted diseases has survived every round of elimination. Although it may be quite unusual for seroconversion to take longer than six months, it happens, according to Dr. Mathilde Krim, of the American Foundation for AIDS Research—and no one would want to receive a blood transfusion from a donor who tested antibody negative but had kicked heroin just seven months earlier.

Without knowing why Mr. Dunne finds my reading of the statistics and studies peculiar, I can't address his objections. Certainly many gay men have changed their behavior, but this hasn't been enough to prevent the transmission of great numbers of cases. Reported cases of AIDS among gay men increased 90 percent last year over the year before. Also, virtually all studies have concerned self-identified gay men. Nothing is formally known about the practices of millions of closeted homosexuals.

Congressman Dannemeyer's conclusions about the efficacy of education may or may not be valid, but the data he presents is insufficient to support them. He bases his assessment of the impact of the wartime sex-education campaign in the military on syphilis statistics in the general public. One should look instead at the periodic rates of syphilis in the military itself, and even then one might wonder whether there would have been more cases without the Army's efforts.

Dannemeyer's discussion of teenage pregnancy is similarly misleading. He equates federal expenditures on family-planning clinics with sex education, yet family-planning clinics provide many other services. One would need to know what percentage of those clinic funds were earmarked for education. Are the teenagers who are becoming pregnant the same ones who are using the clinics? What percentage of the teenagers who use family-planning clinics are pregnant when they first come in? The relevant statistics would be those from a longitu-

dinal study of teenagers who received counseling at such clinics but were not pregnant when they first came in.

My statement, quoted by Mr. Reilly, that "it seems only a matter of time . . ." seems already to have been validated. American bishops have convened on the subject of AIDS and priests, and it has been addressed by the CBS Evening News, *Newsweek*, *The New York Times*, and the *National Catholic Reporter*, which recently ran a two-part article on the widespread homosexuality among priests and seminarians.

In addition to the public-health official mentioned—who, because he is Catholic, did not wish to be identified—I interviewed physicians, officers of state sexually-transmitted-disease programs, and priests. One priest, a co-founder of New Ways Ministry, which offers support services to gay clerics nationwide, considered the official's estimate "very reasonable."

My article and many others have commented on the high risk of exposure to AIDS among blacks and Hispanics. Mr. Patrick's observation that blacks and Hispanics "already" account for 90 per-

cent of the case load seems oddly to suggest that AIDS is on its way to becoming a disease of minorities. But the Centers for Disease Control has stressed that the overrepresentation of blacks and Hispanics in AIDS statistics is related not to race per se but to underlying risk factors. Among AIDS victims who are intravenous drug users known not to be homosexual, 80 percent are black and Hispanic. Similarly, among reported AIDS cases, 84 percent of heterosexual partners of intravenous drug users are black or Hispanic.

MUSIC HATH CHARMS

Although this may sound too much alike kicking a dead horse, I need to satisfy this urge to correct Professor Caldwell Titcomb (Letters to the Editor, February *Atlantic*). I agree with William Youngren that the medical term *tympany* does not have "its own etymological descent."

Dorland's Illustrated Medical Dictionary contains more than twenty entries with *tympan-*, all of which derive from the

Greek word *tympanon*, for "drum." For *tympany*, the two definitions are "tympanites," and "a tympanic, or bell-like, percussion note." *Tympanites* means "distention of the abdomen, due to the presence of gas or air in the intestine or in the peritoneal cavity," which again returns to the analogy of a drum.

What's more, to set both Titcomb and Youngren straight, *tympany* is *not* a symptom but a sign. A symptom is "any subjective evidence of disease or of a patient's condition, i.e., such evidence as perceived by the patient," while a sign is "any objective evidence of a disease, i.e., such evidence as is perceptible to the examining physician, as opposed to the subjective sensations (symptoms) of the patient." (Dorland)

CHARLES K. TASHIMA, M.D.
Houston, Texas

William H. Youngren replies:

As a medical illiterate, I was most interested to learn from Dr. Tashima the accepted medical distinction between *symptom* and *sign*. It appears, from the *Oxford English Dictionary*, to be of relatively recent origin.

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At a time when most letters to the editor seem to be about nuclear war, global poverty, the collapsing of our federal administration, and other nightmares, it delights me to find the exchange of letters between Caldwell Titcomb and William Youngren. Their fuss about the derivation of *timpani* puts me in mind of those acerbic salvos that crotchety gentlemen fire off to the London *Times* about less-than-earth-shaking matters, which give the rest of us such delightful reading.

MICHAEL R. BECKER
Philadelphia, Pa.

REAGAN'S REIGN

William Schneider's otherwise fine article on political changes in America is flawed by a misunderstanding of economic history. The United States did not suffer from hyperinflation in the 1970s. The annual change in consumer prices, according to the OECD *Main Economic Indicators*, was never higher than 13.5 percent (1980). *The Dictionary of Modern Economics* defines hyperinflation as "the rapid rise of prices without limit. . . . Hyperinflation has been rare, usually occurring during or after wars or revolutions, and is often the product of a social and economic breakdown. . . . During the hyperinflation in Germany in 1923, prices rose 2500% in one month, and the value of the mark fell so far. . . that it was worth only one trillionth of its earlier value."

Econometric studies have shown that most of the inflation since 1973 can be explained by the price behavior of commodities, particularly oil. Inflation was not a response to the New Deal policies of the 1930s, as Schneider believes. Commodity price shocks of the 1970s caused increases in the consumer price index of eight to fourteen percent. Commodity price collapses in the mid-1980s are now causing increases of two to four percent. Neither set of events is related to Reaganomics.

Federal Reserve policies partially explain the lower inflation rates we now enjoy, but the success of Paul Volcker, a Carter appointee, is due to his ability to counter the extremes of Reaganomics.

Because Schneider overestimates the problem of inflation in the 1970s, he underestimates Reagan's lack of policy success.

MICHAEL A. SHEA
Washington, D.C.

William Schneider replies:

Mr. Shea is quite right. By the standards of Weimar Germany or contemporary Argentina, the United States did not experience hyperinflation. But what we had was bad enough to shake the foundations of American politics. According to the Gallup poll, inflation was considered far and away the most important problem facing the country from 1973 through 1981. And the blame was put on big government. I am willing to believe that this blame was misplaced, that commodity prices and not government were the culprit. I am also willing to believe that Federal Reserve policies were a key factor in the disinflation of the 1980s, although the political will supplied by President Reagan in 1982 ("Stay the course") was probably essential. I can also believe that President Hoover was not responsible for the Great Depression and that what got us out of the Depression was the Second World War, not the New Deal. The point is that there are two realities, one political and the other economic. They are often altogether different.

A FARM AT RARABA

Not since Alan Paton has there been such an eloquent, understated voice on the social issues of South Africa. Ernst Havemann's "A Farm at Raraba" (January *Atlantic*) hits the nail on the head where statistics and moral tracts leave only dents in the surrounding wood.

I anxiously await the publication of his collection of stories.

MARK ANDEL
Hoffman Estates, Ill.

I doubt if many of your readers know that a heart-shot animal does not die instantly, but rather typically runs for several hundred feet before collapsing from muscle failure due to blood loss. Unless shoulder or spinal bone is broken by the bullet, rarely will a large running animal simply "go down" from a single chest wound.

Ernst Havemann would also have the reader believe that 800-yard rifle shots at moving targets are both desirable and probable. Nobody but a fool would attempt such a shot, and nobody but a non-hunter would imagine such things are possible.

PAUL QUINNETT
Cheney, Wash.

Ernst Havemann replies:

Since the Raraba story is told by a rather self-centered hunter, I thought a tendency to exaggerate would be in character. However, I agree that less-dramatic marksmanship would be more credible.

BY THE NUMBERS

I was startled by the reasoning in the "Demographics" paragraph of the February Almanac. In support of his observation that February's share of the year's births is declining, Thomas Exter cites the decline in births between 1984 and 1985. But 1984 was a leap year!

ROBERT C. STRAND
Santa Cruz, Calif.

Thomas Exter replies:

The decline in February's share of the year's births began well before 1985, and the trend obscures any momentary blips that result from the extra day in leap years. The February share declined, for example, from 8 percent in 1971 to 7.53 percent in 1981 and to 7.36 percent in 1985.

ADVICE & CONSENT

"A Question of Fairness," by Juan Williams (February *Atlantic*) is a thought-provoking portrait of a worthy man. However, Williams attributes authorship of *Black Metropolis* (1945) to Richard Wright. The authors were St. Clair Drake and Horace R. Cayton. Wright wrote the introduction.

JERRY W. WARD, JR.
Tougaloo, Miss.

My husband and I both work at home, so I smiled with recognition while reading David Owen's "Work Marriage" (February *Atlantic*). I think, however, that his choice of the terms *work marriage* and *work wife* to describe the relationship at the office illustrates how far men and women have to go. Ask most *women* what they would call someone who "has lunch with you pretty often," "expects you to tell her the truth, more or less, about the thing she has done to her hair," and "tells you things about her other (home) husband," and they would label such a person "a good friend."

C. L. FORNARI
Chatham, N.Y.

Lionel Linder (Letters to the Editor, January *Atlantic*) is dead wrong in his statement that the hub or urban-village development "requires autos and freeways." Urban-village development is not unique to the United States; in fact, in many European cities most high-rises are found in the suburbs. But in most other parts of the developed world transit is an integral part of the emerging urban villages.

It is not the concept of urban villages that requires autos and freeways but the design of the U.S. urban village. Urban villages can easily be served by transit. They provide the critical mass needed to support transit, and the siting of homes and businesses throughout the urban landscape creates bidirectional commuting patterns. It is much more efficient for buses and trains to have good passenger loads in both directions rather than in only one direction, as is the case in traditional downtown radial systems.

JOE CARDOZA
San Francisco, Calif.

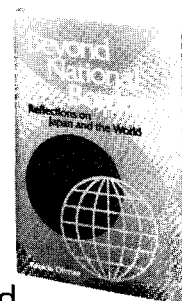
When I saw the heading "Reading *Ulysses*" in the January *Atlantic* (Letters to the Editor), I settled down for a kind of rerun of my pleasure in Martin Amis's just and witty essay ("Teacher's Pet," September *Atlantic*). I was startled and amazed to find outrage and hostility. It's hard to see calling a novelist whose latest work is a satire about money-grubbing a "scribbler for Mammon" (not to mention a "jealous, cowardly . . . bully") as anything other than sheer (defensive) malice, in fact. The Amis piece was overwhelmingly a writer's appreciation of, indeed, a "writer's writer" and only secondarily, but hilariously, an accurate description of the manner in which *Ulysses* is read ("un-zipped" and "deconstructed" but not curled up with). The term *reader-nuking*, applied to *Finnegans Wake*, was for my money worth the entire cost of a subscription to *The Atlantic*.

ANNA SHAPIRO
New York, N.Y.

Fortunately, I read Holly Brubach's perceptive account of the Bronislava Nijinska legacy ("Shakespeare's Sister," February *Atlantic*) in time to catch the exhibit before it left San Francisco. I visited it twice during its last two days here, because I have not seen anything so beautiful in years.

KATHERINE SIEG
San Francisco, Calif.

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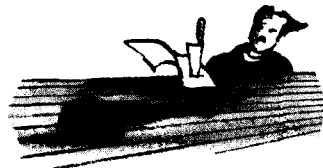
THE MAY ALMANAC

THE SKIES

May 1, May Day, midway between the vernal equinox and the summer solstice, and a holiday since ancient times. 4, the Eta Aquarid meteor shower peaks in the hours after midnight. 13, Full Moon, also known this month as the Milk Moon. 27, New Moon.

GOVERNMENT

May 4, the day that the National Archives proposes to make public Richard Nixon's special files. An attempt by the archives to do so in 1983 was abandoned as a result of lawsuits by 29 Nixon aides. 15, \$189 billion of the current public debt limit (\$2.3 trillion) is set to expire today. When the Treasury reaches the debt limit, it loses the authority to borrow money; for it to retain such authority the debt limit must be increased. Normally increases are permanent, but the increase granted last fall was made temporary, because of still unresolved questions posed by the Gramm-Rudman-Hollings bill. Because debt-limit-increase legislation must pass, or else the government will shut down, such legislation is a popular vehicle for amendments that might not pass on their own.



ARTS & LETTERS

May 8, the Edgar Allan Poe Awards will be presented for mystery writing in a dozen categories, from best novel to best motion picture. In the past few years mysteries seem to have led romances as the most-bought kind of fiction. While publishers recognize about six basic types of mystery book—from "hard-boiled" to "English cozy" to "espionage"—the precise definition of what constitutes a mystery is elusive, leaving the publishing industry with a small mystery of its own:

just how many mysteries are published and sold each year? 24, a large selection of Andrew Wyeth's no longer mysterious "Helga" drawings begins a 20-month, 6-city tour, beginning at the National Gallery of Art, in Washington, D.C. This means that the art-literate will continue to bore one another, and everyone else, with debates over whether Wyeth is an "artist" or a mere "illustrator" until at least the swearing-in of the new President, in January of 1989.



EXPIRING PATENT

No. 3,512,485: Ice-cream-sandwich machine. "A mechanism to accept a frozen slab of ice cream with a cookie on top thereof, turn the element over, heat the upper surface thereof to form a bond with a second cookie, place a second cookie thereon to establish a bond therewith, and deposit the entirety for further processing."

FOOD

In most areas where the wild morel mushroom grows, May is the height of the season for it. Morels exist only in the wild at present, although a Michigan company is developing a process for their commercial production. In the past decade the chic shiitake, enoki, and paddy-straw mushrooms (the fungal equivalents of arugula and radicchio) and a mushroom known in different parts of the country as the wood ear, pleurotus, or oyster mushroom have entered commercial production in the United States. Commercial mushroom production here has increased 25 percent since 1980.



ENVIRONMENT

"The month of May was come, when every lusty heart beginneth to blossom, and to bring forth fruit"—Sir Thomas Malory. May is the peak month for tornadoes, which meteorologists classify on the Fujita-Pearson Intensity Scale from F-minus ("Doubtful Tornado") through F-6 ("Inconceivable Tornado"). Oklahoma endures a disproportionate number of tornadoes—annually 8.2 per 10,000 square miles (Indiana, the next most afflicted state, gets only 6.2). Several pairs of red wolves are to be released this month in the Alligator River National Wildlife Refuge, on the coast of North Carolina, commencing a five-year experiment to re-establish the species, which was declared extinct in the wild in 1980. The red wolf, which originally ranged over all of the Southeast, is the true North American wolf; the more familiar gray wolf is an immigrant from Asia.



DEMOGRAPHICS

May 10, Mother's Day. Roses—52 million of them—will be the flowers most frequently received by U.S. mothers, of whom there were 61 million in 1980. According to the National Center for Health Statistics, in 1984, the latest year for which such data are available, 4 women under the age of 15 gave birth to a fourth child, 18 gave birth to a third child, 251 gave birth to a second child, and 9,638 gave birth to a first child. But overall the median age of mothers at the time of a first birth—23.4 years—is the highest it has been since the Great Depression.

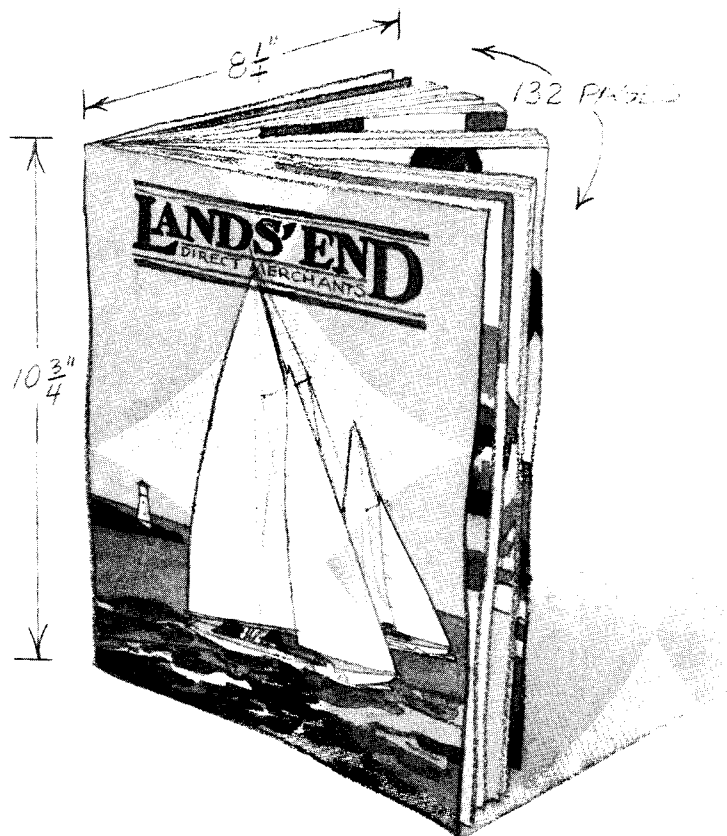
HEALTH & SAFETY

More weeks and months related to health and safety are observed in May than in any other month. May is National Arthritis Month, Better Hearing and Speech Month, American Bike Month, Correct Posture Month, and Foot Health Month, among other things. May 1-7 is Physical Education and Sports Week, 3-10 Lamaze Childbirth/Prepared Parenthood Week, 6 Nurses Day, 8 World Red Cross Day, 9-15 Digestive Diseases Awareness Week, and 10-16 Hospital Week and Nursing Home Week. Also, the time (spring to fall) in which mushroom poisonings are most common has begun. In 1985 mushrooms caused at least four fatalities.



25 YEARS AGO

Alfred Kazin, writing in the May, 1962, issue of *The Atlantic Monthly*: "One night I came upon William Saroyan somewhere in midtown; he was staying at the Great Northern, on Fifty-seventh Street, and in a sudden burst of enthusiasm based on our common freedom from Anglo-Saxon convention, he led me up and down cellar restaurants and nightclubs to show me all his Armenian friends and relatives in New York, and when we sweatily came back to his room, he pressed new shirts on me, wrote long flowing inscriptions to me in his books, and informed me that he was going off to Europe the next day. He was exuberantly Armenian; in that narrow little box of a hotel room, with his shirt off, the cigar going and the radio screaming, he looked like a peasant tramping down grapes in a tub. A few days later I had a telegram from him; instead of going off to Europe he had lost the time playing craps and had ended up in Montana."



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REPORTS & COMMENT

NOTES

THE WHITE PERIL

WHEN I WAS A Boy Scout, my troop went on Easter Week expeditions. Usually we camped in Yosemite or the Grand Canyon, but one year we toured military bases. We bunked with Marines at Camp Pendleton and wolfed down mess-hall chow. From the decks of big flattops we watched Navy fighter planes scream in to land. We tried on Strategic Air Command helmets and flight suits. The patches said, PEACE IS OUR PROFESSION. This was 1963.

The romance didn't take. Hardly anyone from the troop subsequently signed up. But one moment made a lasting impression on me. A SAC colonel, who had flown those mighty B-52s and kept his pilots alert for their mission to Moscow, waxed philosophical after he showed us around. "Let me tell you men something," he said—instantly winning the devotion of fourteen-year-olds in Scout caps. "If you ask me, it's the Chinese we

should be worrying about." He gestured toward a hulking bomber. "I say, let's take them out before it's too late."

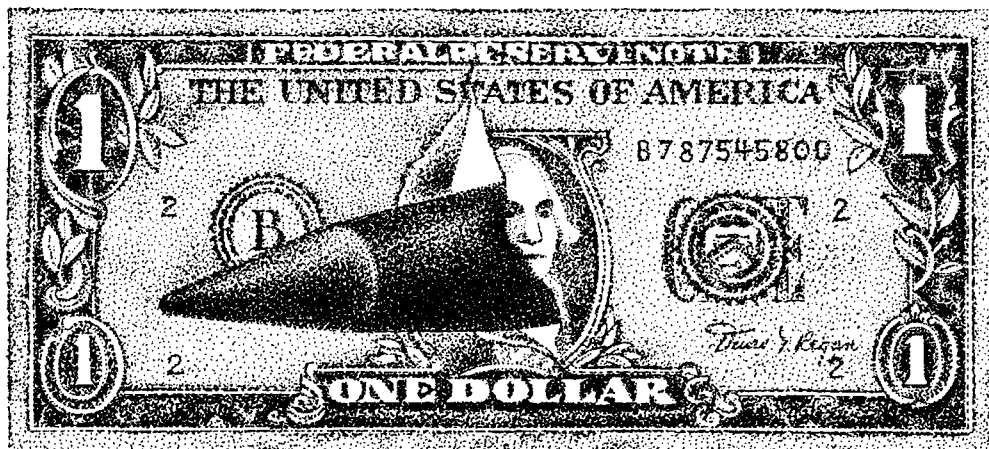
I have thought of the colonel often during the year that I have spent in Asia, perhaps because I read Gore Vidal's famous "requiem for an empire" speech, delivered at a PEN Authors Evening and later published in *The Nation*, just before I left. Vidal's point was that America's brief, happy run as an empire was over. It began in 1914, when New York replaced London as the world's financial capital, and it ended in the fall of 1985, when America became a net debtor nation. Since then we've gone some \$250 billion into the hole. The new empires, he said, would be those of the East. Our only hope was to make peace with the Russians, so as to gird ourselves for the massed Asiatic hordes.

Vidal got into a lot of trouble after the speech, for reasons that seem bizarre from this side of the Pacific. In an article expanding on his point Vidal claimed that Jewish neo-conservatives kept plumping for big defense budgets, thereby destroying our economy, because they loved Israel more than America and wanted to see us bogged down forever in the Middle East. For this he

was called anti-Semitic, and that's not what is surprising. The bizarre aspect of the criticism is what it *didn't* include. Only a few people seem even to have mentioned the more blatant racism of Vidal's argument. Like the colonel, he was warning that the white man and the yellow man were at war.

"Now the long-feared Asiatic colossus takes its turn as world leader, and we—the white race—have become the yellow man's burden," Vidal said. We had to get along with the Russians because only with our combined forces would white people have a chance. "After all, the white race is a minority race with many well-deserved enemies, and if the two great powers of the Northern Hemisphere don't band together, we are going to end up as farmers—or, worse, mere entertainment—for the more than one billion grimly efficient Asiatics."

Vidal, unlike the colonel, may merely have been sounding arch. If he is trying to be serious, I thought, he must be crazy. The idea that Japan and China are about to team up, in what he called the "Sino-Japanese axis that will dominate the future," would come as news to either party. In their values and motivations, the two cultures strike me as being



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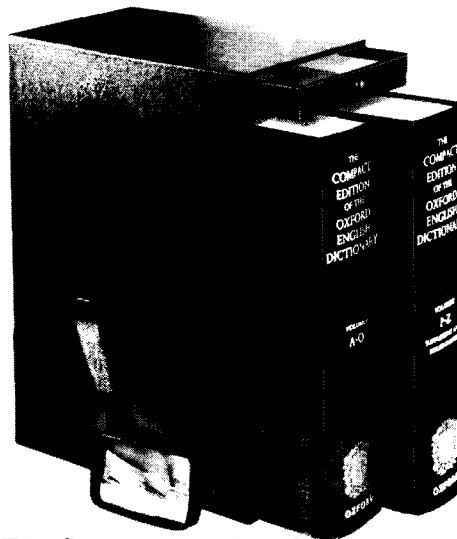
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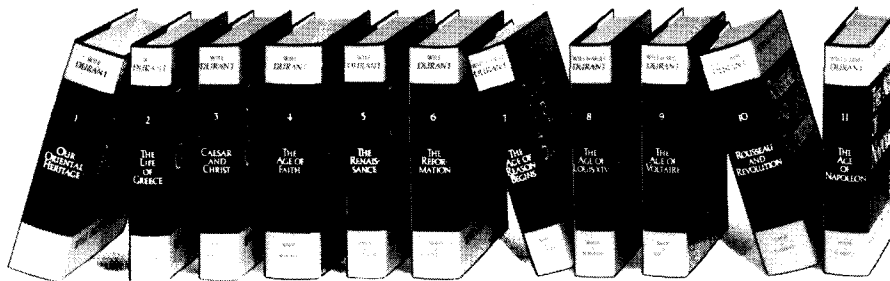
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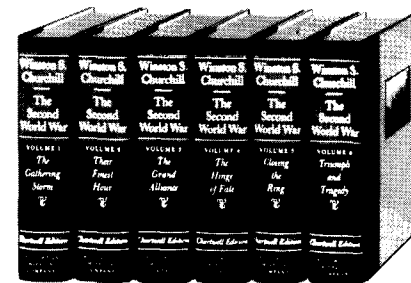


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about as similar as Mexicans and Swedes. "Grimly efficient" the Japanese may be; but no one who has seen Chinese people eat, gamble, or launch a two-week celebration of the Lunar New Year would apply this term to them. The famous acquisitive drive of the overseas Chinese is usually attributed to their fierce, Mafia-like family loyalty. I interviewed a Chinese merchant in Singapore who had been ruined when his brother-in-law embezzled the assets of their joint business. He seemed weirdly placid, and explained, "At least it's still in the family." The Japanese are so much less attentive to dynastic details, and so much more motivated by loyalty to institutions, that leading business families routinely adopt ambitious young men as their "sons" and business heirs. The bitterest, most racist complaints I've heard about the Japanese are those I heard in China. When Japanese businessmen talk about China, they tend to rhapsodize about raw materials, cheap labor, huge potential markets—not allies against the round-eyed West.

And if China and Japan make an odd couple, what about us and the Russians? Apart from our "whiteness" (tell it to Jesse Jackson, or the fast-growing population of Soviet Asia), exactly what values are we supposed to share? The Protestant ethic? The pursuit of happiness? I Gotta Be Me?

THAT IS WHAT I thought at first. But as time went on, I realized that I was the one being shallow. I had missed the point. Gore Vidal may be wrong about the yellow men—they're not about to get together—but he is right about the whites. The one thing I'm sure I've learned in Japan is this: America doesn't have a chance to stop declining if it must keep competing with both the Russians and the Japanese.

Everybody in America knows that Japan's "free ride" on defense gives it a big economic edge. The disparity in defense budgets is only the most obvious part of America's handicap. There is also the diversion of talent. ("Our first-rate engineers are building cars and industrial electronics," a Japanese man in his sixties, who had lived in Hiroshima just after the war, told me. "Your first-rate engineers are building military lasers. Your best might beat our best, but it is rather too arrogant to think your second-raters will.") Most important of all, though least noticed or debated, is

America's basic strategic decision as the leader of an alliance: we care more about keeping Japan (and Western Europe) on our side militarily than we do about competing with their industries. "The first principle [of postwar strategy], that American trade policies be subordinated to broader political goals, has been consistently followed," David Yoffie writes in a new book called *America vs. Japan*. This is the burden of empire.

Everybody in America also thinks that if we just crack down on the Japanese, we can make them solve our defense-spending problem. Maybe they could impose some comparable handicap on their industries, or pick up part of our costs—no one's ever too specific about what the solution would be. I think we're fooling ourselves even to hope that the Japanese will bail us out. It's not simply that every one of Japan's neighbors—yellow men or brown—would blanch at the idea of a re-armed Japan.

We would be very unhappy too. Do we worry about losing those "strategic" bases in the Philippines? They're no more important than America's air bases on Japan, nestled right next to the Soviet Union, or our naval bases commanding the straits that bottle up the Soviet Pacific Fleet. Do we grumble about relying on the Japanese for defense technology? We'd feel worse if they took their business elsewhere. It's a standoff. They need us, but we need them. When we make hollow threats to end the "free ride," we look like fools.

The yellow men won't solve our problems. And I've come to see that that's why Gore Vidal is right. It's up to the white men to find a way to live together—or for Americans of all colors to figure out how to defend ourselves for less. If we can't, we finally will have something in common with the Russians: a society ruined by "defense."

—James Fallowes



HARLEQUIN

TODAY'S THIRTY-five-year-olds are the first to be told regularly that being thirty-five really means sometimes being ten and sometimes fifty. They have grown up hearing that a continuous rapport with childhood is not only okay but necessary, and that the need for play is biological and lifelong. Even as men and women suspend these notions long enough to produce children of their own, they uneasily eye their single

friends, who are eyeing them right back. Everyone is wondering who's going to be sorry later. Baby Boomers are afflicted with premature nostalgia. In fact, they never really gave up the preoccupations of the sixties and seventies but kept re-examining and fondly satirizing them, keeping them current until they pervaded the culture of a new generation.

Pee-wee Herman skipped onto this scene several years ago. In his shrunken suit, skinny bow tie, and bucks, Pee-wee is the alter ego of the comic Paul Reubens, a perennial man-child whose toys and gags seem drawn from a toy

chest stocked during the past few decades. Last year someone in children's programming at CBS realized that this character might draw an audience from two generations, and *Pee-wee's Playhouse* joined the Saturday-morning lineup. Six months after the show first aired, surveys indicated that a third of the viewers were eighteen or older. No one should have been surprised that a man who claimed to love his toys but not enough to marry them would find an audience beyond the playground.

Pee-wee does nothing but play, whether alone or with a few children or adults in the neighborhood. His game may be purely imaginary or involve dozens of special effects; he has a chair that tickles anyone who sits on it, a talking globe, and a refrigerator full of animated food. Pee-wee seems sometimes ingenuous—absorbed in his ant farms, be-bop music, and robots—and sometimes ironic. Asked if he is ready to play, he strikes a jazzy pose and says, "I was *born* ready to play." The incongruities of his attitudes are hardly stranger, however, than those in the commercials on Saturday morning. In one ninety-second break unnaturally sophisticated boys and girls in adult makeup and business suits promote after-school snacks, and then come two ads that could have appeared in 1965, with cherubic girls sighing over Barbie, and Fred Flintstone talking up a new cereal.

The national confusion about time's passage is the mainspring of Reubens's work. He draws from any of the first fifteen years of life and of the past thirty years of American culture as though they were somehow coextensive. Everything he does is derivative, but to his adult audience his evocations of the past are weirdly affecting. Pee-wee's toy collection, like one of Joseph Cornell's boxes, is filled with knickknacks that individually make no impression but that in certain juxtapositions produce resonances that are themselves art. No one can say whether Pee-wee Herman's games will seem funny twenty years from now. Their present impact depends deeply on Reubens's ability to gauge precisely his audience's appreciation of their original social context. Pee-wee gets a letter from a pen pal in Japan and reads it aloud: it's a string of clichés ("Dear Pee-wee-san") that children associate with the Orient, like paper houses and raw fish. One from a French pen pal reads, "Bonjour, Pee-wee. My parents eat stinky cheese with every meal. Today I

saw Brigitte Bardot." The letters appeal to children, yet for adults they also evoke the Peace Corps-era conviction that international understanding could be fostered through children's correspondence. Reubens does not restrict himself to material objects—knowing, for example, that a schoolyard taunt is no less a cultural relic than, say, Silly Putty. When Pee-wee deflects a bully's insult by saying, "I know you are, but what am I?" his delivery suggests at once to children of the sixties those occasions in their childhood when this seemed the inspired response.

Critics have compared Reubens to Soupy Sales and Jerry Lewis, but these men were always adults behaving childishly. Pee-wee's closest predecessor may be Lily Tomlin's Edith Ann, forever five and a half, legs dangling over the edge of an oversized rocking chair. But unlike Edith Ann, who is perpetually weighed down by a family just out of view, Pee-wee seems to have been born in the funny papers, where many characters have no family or domestic context. In this way he is like Snoopy. It is not clear that Snoopy knows he is merely a dog, and those who love him protect him from the full force of that intelligence. In the playhouse only one adult, the mailwoman, occasionally challenges Pee-wee's reality, and that is about as many as the act will bear. When she asks, "Is there something wrong with you?" Pee-wee rasps back, "What do you *mean*?" The metaphysical foundations of the playhouse shudder.

Pee-wee, like all the Peanuts characters, exists primarily in relation to friends. In these dealings his level of maturity can fluctuate amazingly. He may gently correct one playmate's grammar and yet unpleasantly insist that another pay him five cents to see his ant farm. In a single skit he can seem like an adolescent and a fourth-grader. He leers appreciatively at his Sandra Dee-like neighbor, Miss Yvonne, in a bathing suit, and tells her, "You are the most beautiful woman in Puppetland. You have the biggest hair." Yet when he is playing house with her and she asks for a kiss, he says tersely, "That's it. Game's over." Whatever age he is adopting, Pee-wee does nothing he doesn't want to do. At a time when everyone says ruefully "I can't" but really means "I won't," Pee-wee says, "I won't—want to make me?"

Reubens is honest, even gleeful, about the ways in which parents and



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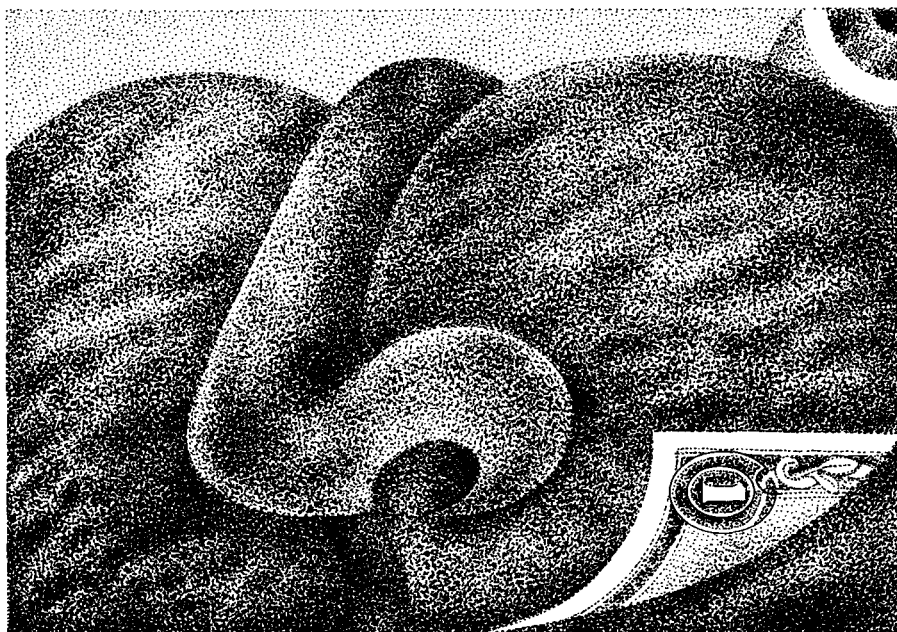
children madden each other—children pretending not to know things they know perfectly well and parents pretending to know things they don't. After confidently telling his household that there is no such thing as a monster, Pee-wee has to eat his words when one finally stalks the premises. Trying to appear nonchalant but barely able to conceal his terror, Pee-wee says, "All right, I made a mistake." As Pee-wee shows how to make a grilled-cheese sandwich, one little girl persists in interrupting his instructions to ask "Whyyy?" until Pee-wee grows so angry he can't speak.

MUCH OF REUBENS'S routine is facial contortion. During one program, about the mystery and ennui of rainy days, it is dark outside and Pee-wee is sitting mournfully in a window seat, looking out. Suddenly his face is illuminated by lightning, revealing how remarkable a face it is in repose—as it so rarely is. With his large eyes, strong bones, and bow lips, Reubens has the sad beauty of Buster Keaton or a Picasso harlequin. (Indeed, his face makes one wonder how else this man could have occupied himself if he hadn't become Pee-wee Herman.) The spell is broken when, overcome by frustration, Pee-wee screams into the camera, "I've got *play-house fever!*"

Reubens succeeds for the reason that all great comedians do. He has an astonishing memory, and what he remembers is childhood. The importance of winning—anything; the significance of mail when one's strongest claim to adulthood is the sight of one's name on an envelope; the crisis when an unsatisfactory ratio of chocolate sauce to ice cream produces something to which skipping dessert altogether seems preferable. All this he can suggest by tucking in his chin, arching an eyebrow, taking a step sideways.

Such an act can never last. Marcel Marceau behind a mask of greasepaint can double as Bip—child, octogenarian, dowager, or dandy—decade after decade. But with the first gray hair or wrinkle, Pee-wee is finished. Many in a generation that used to say "Don't trust anyone over thirty" but when the time came could never bring itself to say "Don't trust us" hope that Pee-wee Herman will get in as much play time as he can, before the whole thing becomes too painful to watch.

—Katie Leishman



BOLIVIA

HOW TO LOSE THE COKE WAR

The U.S.-Bolivian campaign against the "Coca Nostra" has been a failure, says one of the men who led it

FORMER AIR FORCE Major Clarence Edgar Merwin has seen America's war on drugs as few others have—from the front lines of one of its losing battles. For two years Merwin combated Bolivia's "Coca Nostra," the barons of the cocaine trade. The story of his struggle helps to explain why the United States is far from winning this much heralded conflict.

Ed Merwin went to Bolivia, at age forty-five, uniquely qualified to take on the underground empire of the drug traffickers. He had recently retired from a twenty-one-year career in the military, during which he had served as the director of the Latin American branch of the Air Force's Special Operations school, chief of the indications and warning branch of the U.S. Southern Command in Panama, and a senior U.S. representative to the Organization of American States Mission in Central America. He had also served in combat in Southeast Asia and had been detached from the Air Force for two tours with the CIA. He was highly regarded in Washington circles as an expert in special operations.

Shortly after he entered the civilian job market as an "international-security

consultant," the State Department's Bureau of International Narcotics Matters came to Merwin with an unusual offer. They wanted him to join the department's Narcotics Assistance Unit (NAU) team in Bolivia, on a civilian contract, and become the chief adviser to the Bolivian Narcotics Police. His task would be to create and train a first-of-its-kind paramilitary unit to move against major drug-trafficking organizations in Bolivia. Officially designated the Mobile Rural Patrol Unit (UMOPAR), but popularly known as the Leopards, the force would be elite—trained as well as or better than any other armed unit in Latin America, and composed of tough, highly motivated, and corruption-resistant officers and troops. The Leopards would serve as the model for similar anti-narcotics units elsewhere.

This anti-drug strategy had been conceived in four treaties on narcotics signed by Bolivia and the United States on August 11, 1983. In addition to launching UMOPAR, the agreements created a Bolivian government entity known as DIRECO, the Coca Reduction Directorate, and committed the government to a five-year program to reduce coca production to only that level needed by the domestic population of coca-leaf chewers. In 1985 Bolivia estimated that level to be 20,000 metric tons of dry coca leaf annually, a figure thought by most experts to be exaggerated. The figure was recently revised to 10,000 tons. In any case, perhaps 240,000 tons of coca are grown—over twenty times as much as domestic consumption could warrant. This huge crop has the poten-

tial to produce 240 tons of cocaine hydrochloride. Bolivia supplies about 40 percent of the worldwide market in the drug. In the agreements Bolivia was initially obligated to eliminate 4,000 hectares of coca production—some experts estimate that as many as 200,000 hectares are under cultivation there—by December 31, 1985.

Under the treaties about \$7.5 million was allocated by the United States for the agricultural and law-enforcement support of the various programs. This was followed in later fiscal years with additional funding in foreign-aid packages—with, however, the stipulation that portions of the assistance would be suspended unless the Bolivian government took steps to eliminate cocaine trafficking, including meeting the target of the 4,000-hectare reduction.

In this hopeful context of ambitious policy goals and generous funding to reach them, Ed Merwin took his family to Cochabamba, Bolivia, on March 1, 1984. Sprawled across a valley 8,500 feet above sea level, southeast of La Paz, the city was until recently referred to as the breadbasket of Bolivia. That was before coca became king and Cochabamba became the gateway to the vast coca fields of the neighboring Chapare region. Today the city's population of 650,000, though still primarily Quechua Indian, is teeming with *flotantes*—drifters, or transient peasants searching for work in the coca plantations and processing labs. As the coca economy has relentlessly overgrown all else and food production has steadily declined, the valley has become a food importer.

Cochabamba is a cowboy town; dealers and cocaine camp followers loiter in outdoor cafés along the Avenida Ballivian, acting out their vision of themselves as outlaws in their BMWs and Mercedes. Outside town, in the Chapare, impatient dealers have occasionally taken to weighing hundred-dollar bills—so many pounds of dollars buys so many pounds of drug—as they sit behind their lemonade-stand-style folding tables.

From the moment that Merwin arrived in Cochabamba, there were portents of trouble. Merwin had told his State Department liaison that he would accept the job only if his family was guaranteed a secure, defensible home. It had to be on a quiet street; there had to be a stone wall around the property at least twenty feet from the house itself; and there had to be a route of escape,

should the perimeter of the house ever be breached.

The State Department liaison had given his solemn promise: "We don't take chances where the safety of our people is concerned," Merwin recalls the man's saying. But what Ed Merwin saw on his first day in Cochabamba was a house with no protective wall at all. And it was located on a dead-end street, a cul-de-sac. Shaken, he found another house himself.

His unease deepened when he set to work training the Leopards unit. The 1983 agreements obligated the United States to outfit the strike force with virtually all of its nonlethal equipment—vehicles, communications devices, and uniforms. (U.S. law prohibits the transfer of weapons or ammunition to foreign police organizations.) The government of Bolivia agreed to provide the rest—weapons, food, housing, medical support, and salaries for the troops.

But Merwin quickly discovered that the wording of treaties is often a far cry from the language of reality. "The troops would go months without receiving money for rations," he told me recently. "They had food, of course, but it was because of credit. We'd con some merchant into selling enough food for a whole battalion on credit." According to Merwin, this lack of support from La Paz was unswerving. "I kept objecting, because the men weren't getting paid three, four, five, six months at a time, but it didn't do any good. And there was no budget for medical supplies—things any kind of military organization needs. It was not provided for at all."

Although the Leopards unit was intended in the treaties to have priority—the necessary precondition for any effective coca-crop-reduction program being the establishment of governmental authority in the Chapare region—the program was lost in the clutter of other U.S. programs and agencies involved in combating the Bolivian narcotics problem. The DEA, U.S. Customs, the U.S. Information Agency, the Bureau of International Narcotics Matters (and its NAU arm), the FBI, the CIA, and the Agency for International Development all participate in Bolivia's war on drugs. (Inside the United States more than thirty government entities are involved in our war on drugs as of this writing.)

Politically the anti-drug campaign was byzantine; organizationally it was a nightmare. While the NAU was funding a coca-crop-reduction program, AID was

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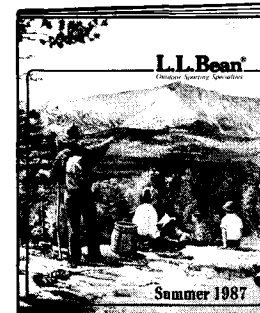
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running a separate crop-substitution program, aimed at inducing *campesinos* to grow other crops instead of coca. Merwin's NAU was in charge of the Leopards unit, but the DEA (which is prohibited from any direct law-enforcement activity overseas) was responsible for developing the intelligence needed by the Leopards to pick targets and make raids. In addition, the entire U.S. effort in Bolivian narcotics control was under the supervision of U.S. Ambassador Edwin Corr, now the ambassador to El Salvador. Unfortunately, the Ambassador's principal mission was not to cripple the drug trade but rather to maintain stable relations with unstable Bolivian governments that refused to do so.

THE PROBLEMS THAT Merwin at first attributed to bureaucracy, indifference, and the anarchy of Bolivian politics took on a new significance when he discovered that his Leopards commander, German Linares, had "accepted gratuities," as Merwin put it, from traffickers. I had met Linares, before Merwin arrived to take over training and deployment of the newly assembled Leopards force. In November of 1983 I accompanied Linares and his troops on a rare raid against a major cocaine lab, run by Jorge Cuellar and Jorge Flores, in Beni province. Cuellar, before going into business with Flores, had worked as a pilot for the legendary drug czar Roberto Suárez Gómez—reputedly the model for the Sosa character in the recent movie *Scarface*. Flores also was considered by the DEA to be a fairly weighty crook. The raid was planned after intelligence indicated that 3,000 pounds of pure cocaine would soon be flown out from the Cuellar-Flores ranch. But the operation was delayed a critical twenty-four hours—lack of fuel for the aircraft, Linares told me—and by the time we arrived at the remote jungle ranch, all that remained was a few pounds of the drug, \$13,000 in crisp Bolivian pesos, a small aircraft fueled and ready to go, and Cuellar and Flores.

What I didn't know at the time, Merwin insists, is that Linares accepted a gold Rolex watch from Cuellar and "probably some other items or promises of items." The two dealers were released from jail after only a few days, when a La Paz judge cited "irregularities" in Linares's paperwork. Soon after the raid Linares's administrative assistant, Captain Pablo Vargas, took to driving his newly acquired Mercedes

through the streets of La Paz, causing no surprise that he could afford such a vehicle on his salary of \$75 a month. Linares remained commander until June of 1984, when he led a group of rogue Leopards officers who participated in a rightist-backed attempt to kidnap Hernan Siles Suazo, then the President. Exiled to Spain, Linares was recently brought back and reappointed to his old Leopards command.

MERWIN EVENTUALLY recalled Linares fondly, considering his corruption "not very serious" when set against that of later commanders. In an interview, never broadcast, for the CBS newsmagazine *West 57th*, which I co-produced after Merwin's return to the United States, the reporter Jane Wallace asked him about corruption.

Wallace: "[You had] eight different commanders?"

Merwin: "Eight. It was mostly because they either got too blatant about accepting bribes or, in the one case of the only really good tactical field commander we had, he refused to take a bribe and he got fired by his boss, who had offered him the bribe."

Wallace: "So the drug dealers were buying off [former director of the Narcotics Police] Colonel Guido López while you were there, as far as you know?"

Merwin: "I was under that impression."

Wallace: "How solid is the information?"

Merwin: "Very solid."

Wallace: "Can you reveal the source of it?"

Merwin: "No, not really. . . . The U.S. is a very technological society and we have a lot of capabilities. That's something that the Bolivians never quite understood. Every time they talked on the telephone, we knew about it, you know."

Wallace: "Is [the current director of the Narcotics Police] on the take?"

Merwin: "I don't even know who he is right now. . . . If this one isn't, his predecessors all were."

Wallace: "All of them?"

Merwin: "To my knowledge, all of them."

Wallace: "In what ways?"

Merwin: "New cars. Send your kids to the States to go to school. One of the former Leopard commanders who was dishonest—he was bad when we got him and he got worse—I understand

that he now has a really nice ranch. Has a new BMW. Wears very nice clothes. All of the national directors [of the Narcotics Police], very natty dressers. Some of them had amazingly good taste."

Wallace: "And the rest of the enforcement structure in Bolivia . . . how corrupted was that structure?"

Merwin: "I have to tell you I think that a hundred percent of the Bolivian enforcement structure was corrupted."

Wallace: "Bought by the cocaine traffickers?"

Merwin: "Yeah."

HIS MISSION THUS compromised, Merwin found his operations either sabotaged or restricted to low-level traffickers. I observed one raid in mid-December of 1985, carried out against the tiny village of Cruzpata, about twenty-five miles south of Cochabamba. Merwin and forty-seven Leopards stole into the village just before dawn, rousting frightened villagers from their beds at gunpoint and searching the pitted stone huts for drugs. The net result, aside from the seizure of a couple of pounds of drug, was the arrest of two coca-leaf mashers (the drug-making process looks much like primitive wine pressing), a boy of about sixteen and a woman with three children who was caught with a half pound of coca paste. What follows is a transcript of my videotaped interview with one of the suspects as she was being led away:

Question: "Ma'am, why do you have this [points to bag of cocaine]?"

Woman: "They told me to sell it. My husband is trying to [find work in] potatoes. He's going to try hard. . . ."

Question (to Ed Merwin): "These people do not seem to be making any money from this. They seem to be more victims than perpetrators."

Merwin: "Clearly. That's correct."

Question: "Then why are they being arrested?"

Merwin: "People have to understand that it is illegal, and be unwilling to do it, be unwilling to go to jail to earn even what they earn."

Question: "What happens to these children if their mother goes to jail?"

Merwin: "They'll go with her."

Question: "They'll go to jail with their mother?"

(Merwin sighs.)

It was a difficult moment for Ed Merwin, one that caught the futility of his mission in Bolivia. "It was very frustrating," he later told me, adding that he

had interceded with the prosecutor to let the woman go. "Picking up these *campesinos* and putting them in jail for however long is not going to really do any good. You want the big guys . . ."

WHO ARE THE chieftains of the Coca Nostra who have fostered this political corruption? As Bolivian (and some American) officials tell it, the Coca Nostra is an invisible cabal of conspirators, each more elusive than the archterrorist Abu Nidal, each better protected than Yasser Arafat, and each possessed of more weapons and resources than Colonel Qaddafi.

Actually, I found the men of the Coca Nostra to be more accessible than the average big-city mayor in America. I spoke on the telephone to members of the Roberto Suárez family, and they were forthcoming about many of their activities, especially their charitable work in behalf of the poor. I visited (and even filmed inside) a well-guarded cock-fighting club on a main street in the town of Santa Cruz, where I saw men reputed to be among the biggest traffickers in the country betting tens of thousands of U.S. dollars in cash on a single fight.

I'm speaking of people whose trafficking enterprises handle from 2,000 to 10,000 pounds of pure cocaine a month, and generate gross monthly sales of \$20 million to \$70 million—people like the Razuk family and the Malky brothers, descendants of Palestinian merchants who emigrated earlier in this century. There are also the Chávez Rocas brothers, a former air force lieutenant called "Teniente" Morales, Loncho Paz, and two of the biggest drug traffickers in the world, Hugo Añez (more on him later) and the more famous Roberto Suárez.

Like several other drug barons, Roberto Suárez comes from a prosperous cattle-ranching family. His great-grandfather was Bolivia's first ambassador to England, and other Suárezes have served as senators and business leaders. Reportedly, Roberto Suárez's fondness for gambling necessitated at one point a financial "quick fix," as it were, which the surging cocaine trade provided. He quickly rose to the top.

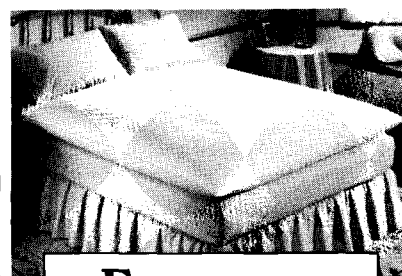
One of the most fascinating elements of the Suárez story is how little his status as an outlaw has limited his very powerful influence in the country. In the late 1970s Suárez became associated with the Nazi war criminal Klaus Barbie, who was hiding out in Bolivia. Barbie used

his Gestapo experience and his fascist connections to recruit for the Coca Nostra a small private army known as *Los Novios del Muerte*—"the Fiancés of Death." It was actually more a security force than an army, and probably never numbered more than twenty-five men. But among its top officers was a right-wing Italian terrorist, Pier Luigi Pagliai, who was wanted for the 1980 bombing of a Bologna train station in which eighty-five people were killed. And it seems to have concentrated on attacking and intimidating left-wing labor leaders rather than defending the cocaine enterprises of its employers against rivals or the police.

Suárez is known to have been involved with General Luis García Meza in the coup d'état of 1980 (García Meza was alleged to have been paid a million dollars in cash by the Coca Nostra), which for the first time anywhere in the world handed state power over to active traffickers. García Meza's Interior Minister, Luis Arce Gómez (who was popularly known as the Minister of Cocaine), was eventually indicted by U.S. grand juries. In 1981 García Meza's government fell, after Washington suspended aid to Bolivia, and a year later he and Arce Gómez fled to Argentina. Shortly thereafter the new civilian government of Hernán Siles Suazo extradited Klaus Barbie to France and Pagliai to Italy. But Suárez remains, his public presence strong. For example, he has taken out full-page newspaper advertisements to argue against more-stringent narcotics laws. And he has several times publicly offered to pay off Bolivia's \$3.8 billion national debt.

Other members of the Coca Nostra are similarly visible. They own TV stations, cattle ranches, and other businesses, they operate small fleets of aircraft out of major airports, their addresses are in the phone book, and their whereabouts at any time are probably not too difficult to ascertain. If someone wanted to get them, it would be easy to do.

But U.S.-Bolivian anti-narcotics efforts have consistently avoided these bosses of the underground drug empire and have focused instead on the mass of impoverished peasants that makes up the empire's work force. According to a 1986 State Department report, the work force is growing steadily. "The country's entire economic structure—labor, marketing, supply and demand—is being distorted by growing reliance on coca,"



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the report notes. "Diversion of resources, transportation and skilled labor have severely disrupted normal legitimate trade patterns." The report adds, "The poor continue to migrate to key coca producing regions seeking ready work and cash. This trend could increase dramatically as Bolivian tin mines close down in the face of the dramatic fall in world tin prices and as landless and unemployed miners seek employment alternatives."

The economy is paralyzed. Inflation at one point in 1985 reached levels that would produce an annual rate of 20,000 percent. Development has ground to a halt. The very idea of capital investment is laughable. For the first time anywhere in the world, the illegal traffic in drugs is no longer just an underground economy. In Bolivia it is *the* economy.

Meanwhile, rather than attacking the handful of men, and their organizations, who have such a stranglehold on the social and economic life of the nation, the State Department's strategy has been, in its words, to place its "highest priority on crop control." Merwin considers this approach ludicrous.

He describes flying from the town of Santa Cruz to Cochabamba in the company of a representative from Earth Satellite Corporation, which had been contracted by the Bureau of International Narcotics Matters to conduct surveys and determine the precise number of hectares of coca under cultivation. "We're flying up there at ten thousand feet," Merwin recalls, "and as far as the eye can see in any direction is coca plantation. I tell this guy, 'Take a look out there! What's the difference if we eradicate four hundred or forty thousand hectares? There'll still be enough to bury the world in cocaine!'"

Nothing short of immense crop reductions has even a theoretical possibility of making an appreciable dent in cocaine manufacturing. But there is the small matter of trying to implement such a program. In the 1983 treaties the Bolivians promised to destroy 4,000 hectares of coca by December 31, 1985. In that year traffickers planted thousands of new hectares. But, as the Department of State concedes, La Paz managed to eradicate only thirty hectares. Washington praised this as a "demonstration of the government's political will to combat narcotics production."

Today, with less than two years to go before all illegal coca cultivation is supposed to be eradicated in Bolivia, Wash-

ington reports that the bilateral efforts have succeeded in pulling up a total of 200 hectares' worth of coca bushes out of the 200,000 hectares estimated to be now in cultivation. This 200 hectares could have produced about 250 kilos of cocaine. Thus it seems that what was bought with the \$7.5 million of U.S. taxpayers' money initially authorized under the treaties could have been bought wholesale in Miami for \$6 million.

WHILE MERWIN WAS being tied down Gulliver-like by the Lilliputian detail of Bolivian coca eradication, he and his family were in growing danger. There were bomb threats to his home. The electricity was shut off for days at a time—his was the only home in the neighborhood to suffer such outages. The family dog was first knifed and then poisoned. Finally, Merwin discovered through highly classified intelligence gathered in another country that the Coca Nostra had ordered his assassination. Although he still won't discuss details, he does say that the order came from the "highest levels" of the drug mob.

Ed Merwin felt betrayed by his allies, abandoned by his superiors, and held back from truly grappling with his enemies, who now seemed intent upon murdering him and possibly his family, as well. U.S. drug agents had always been considered inviolate—until the recent torture and killing of Enrique Camarena Salazar, in Mexico, that is. Merwin repeatedly asked for—begged for—more support, or at least more pressure on the Bolivians. It never came.

So Merwin decided to act. The DEA had managed to place an informant inside a large-scale cocaine laboratory near the jungle town of Trinidad, in Beni province. This lab was located at the ranch of no less a personage than Hugo Añez. Merwin moved quickly, scrounging up a C-47 transport that even with load restrictions would allow him to ferry twenty-eight troopers, himself, and the air crew to the Añez ranch. The operation was organized as previous ones had been, with one exception: La Paz was not informed of the raid until after Merwin was airborne, and the plane was twenty minutes en route to the target before Merwin told the air crew where they were going.

The Leopards seized thirty-four suspects, two small planes, and an unimpressive assortment of weapons (it did not include any of the surface-to-air

missiles that La Paz officials keep insisting are in Coca Nostra hands). On the property they also found a working cocaine lab stocked with 210 kilos of ready-to-ship cocaine. And in the hacienda, having lunch with a Bolivian senator, was Hugo Añez himself.

Añez was brought to the lab, where he denied knowledge of how drugs had come to be present there. Merwin came in a bit later to find Añez smoking cigarettes and joking with his Leopards guards. Everyone became quiet, except Añez, who smiled.

"Tell you what, my friend," he said. "I'll give you a check, and you fill in the number of zeros you want, okay?"

Without a word Merwin (who tells the story in a matter-of-fact way) grabbed Añez by his open shirt collar, pushed him back, and sat him on a chair in front of a table on which was piled the 210 kilos of cocaine. Then Merwin pulled out his Polaroid and snapped a picture, much as one might of an animal captured on safari. Añez's smile disintegrated; Merwin turned and walked out. Two days later Hugo Añez was released from jail in Trinidad on orders from La Paz. The U.S. Embassy did not protest his release.

MERWIN NEVER AGAIN moved against a major drug trafficker. He spent the remaining months of his tour breaking in new commanders, organizing more raids against mostly low-level operators, and trying not to get killed.

His last act in the war on drugs was to write a report summarizing his mission. In it, though taking pride in his skill and in the knowledge that he had done all he could, he challenged the willful optimism of Washington's assessment of progress in Bolivia. One would never guess that Merwin and his employers were talking about the same country.

The October, 1986, update of the State Department's International Narcotics Control Strategy report, in reference to coca-crop eradication, says that "Bolivia continues to postpone widescale coca eradication," but "plans [are] being finalized." Some ten months earlier, Ed Merwin wrote in his report, "Voluntary crop reduction and legal control of coca will never work. There is too much corruption and inefficiency, and the problem is too staggeringly large to ever have such measures yield results."

The State Department report says that La Paz had decided to "emphasize interdiction and cocaine lab destruc-

tion." Merwin's report says, "There are simply no sanctions being applied against any but the lowest level of traffickers."

The State Department report says that the goal of the Bureau of International Narcotics Matters (INM) "of maintaining effective, simultaneous eradication programs in all narcotic source countries affecting the U.S. drug market is becoming a reality." Compare Ed Merwin's final report: "Our current level of effort is largely a waste of time and money."

Since Merwin's departure from Bolivia it appears to have been business as usual in Washington's war on drugs there. To be sure, last year the State Department withheld \$8.5 million of the total \$72.5 million in aid earmarked for Bolivia. Shortly thereafter the United States launched with great fanfare Operation Blast Furnace, a four-month effort in which 160 U.S. soldiers and civilians ferried the Bolivian Leopards on 256 visits to suspected cocaine labs. What was the end result of this "significant new initiative," as the State Department termed it? At its close the operation had led to the seizure and destruction of twenty-two coca-paste or cocaine-hydrochloride labs. Unfortunately, all of these were *empty* labs—in other words, all that was found was a few barrels of precursor chemicals, maybe a few kilos of leftover drug, and a few brightly colored plastic buckets. Significantly, not one trafficker was arrested.

Still, Washington insisted that Operation Blast Furnace had "disrupted cocaine trafficking in Bolivia." That was in October. But by December, according to *The New York Times*, narcotics experts and U.S. embassy officials in La Paz were conceding that "cocaine activities had picked up." The newspaper also reported that the Bolivian Planning Minister, Gonzalo Sánchez de Lozada, had claimed that Bolivia would "get out of the cocaine business in three years, if we can get the financing." That financing, he estimated, would be in the neighborhood of \$450 million, of which Bolivia, "with great sacrifice," could possibly bear 20 percent.

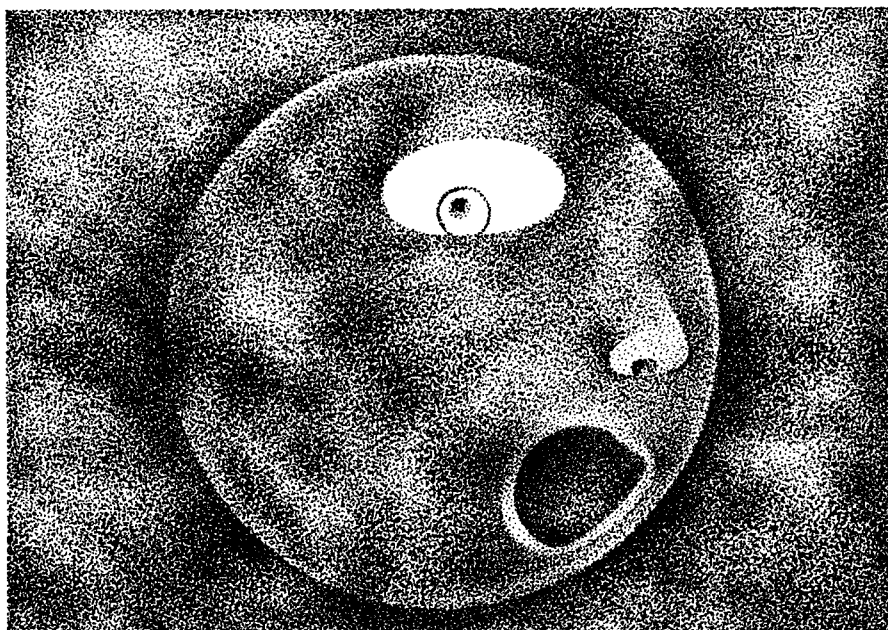
In February, President Reagan certified to Congress that Bolivia has made progress in controlling narcotics trafficking, which means that the country will once again receive its full foreign-assistance allocation. However, the INM's 1987 Strategy Report says, "Optimism about the future must be tempered by

the reality of what has actually occurred in Bolivia since 1980. 'Voluntary' eradication campaigns . . . have not worked. Far from reducing total hectareage, Bolivia's coca cultivation expanded during 1986 by at least 10 percent." And corruption is, if anything, getting worse. In late February, Interior Minister Fernando Barthelemy was sacked, following reports that he was receiving payoffs from coca traffickers.

"The only thing that will work," Merwin insists, "is force. I see it as a war. It's a threat to our national security at the same level as a military threat from another nation or a group of nations." His

prescription is a blunt one: "Internationalize a strike force. Arrest the major traffickers. Put them in jails where they would stay. I would destroy their means of production, the millions of dollars' worth of chemicals that they have around their laboratories and factories. I would burn their houses down, is what I would do." How long would it take to cripple (albeit not eliminate) the cocaine trade in Bolivia if Washington and La Paz were really committed to it? I asked. "With up-to-date intelligence they could do it in a couple of weeks," Merwin said. "Maybe less."

—David Kline



ENVIRONMENT WEATHER VERSUS CHEMICALS

*A controversy over the
Antarctic ozone "hole" has reawakened
debate about restrictions on
chemical production*

LAST OCTOBER Susan Solomon, an atmospheric scientist with the National Oceanic and Atmospheric Administration (NOAA) and the leader of the National Science Foundation's National Ozone Expedition, announced that studies she and other scientists had just completed at McMurdo Station, a scientific facility set on the Ross Ice Shelf in coastal Antarctica, led them to "believe

a chemical process is fundamentally responsible for the formation of the [ozone] hole." Solomon's brief statement appeared to contradict months of research and observations by other highly respected scientists around the country. By November the controversy over the origins of the ozone hole had become a furor.

At the center of the controversy is a croissant-shaped patch of stratosphere roughly the size of the United States and hovering twelve to twenty-two kilometers above the South Pole. The stratosphere is a thick slab of atmosphere beginning twelve to fifteen kilometers above the earth's surface. It contains dozens of different gases, one of which—ozone—has attracted the particular, even urgent, interest of atmospheric scientists. Ozone is a deep-blue explosive gas made of three bonded oxygen atoms. It is found everywhere in the atmosphere, from ground level through

the first layer of the atmosphere, called the troposphere, to the highest reaches of the stratosphere, as high as fifty kilometers above the earth. Close to the ground, ozone is a health hazard, a highly toxic constituent of smog which has a particularly caustic effect on human lungs. But higher, from the middle levels of the stratosphere on up, ozone forms a sort of protective blanket, threadbare in some places, thick in others, which is our only natural safeguard against a raging blast of ultraviolet radiation (UV-B) from the sun.

Ozone is not the only substance that can ward off damaging UV-B. Glass, sunscreen lotion, clothing—almost any solid or liquid will do. In the earth's earlier days, before the ozone layer had formed, animals and plants got along nicely by living underwater. It was not until the ozone layer was in place to absorb the UV-B that living things were able to crawl out of the primordial slime and onto land. Since then many creatures have become well adapted both to dry living and to low levels of exposure to UV-B. Exposure to large amounts of UV-B has been associated with an increased risk of skin cancer and eye damage in human beings, and with changes in the immune systems of animals. Scientists believe that increases in UV-B might cause untold other changes in the biosphere. This is why the discovery of a large and sudden depletion of the ozone layer in the stratosphere above Antarctica has caused such alarm—and has heightened long-standing concerns about a slow depletion of ozone worldwide.

THE OZONE HOLE was first reported two years ago by a group of scientists working for the British Antarctic Survey. The Survey has monitored stratospheric ozone from a scientific station on the Antarctic coast, at Halley Bay, since 1957. Beginning in 1977 it noticed a drop in ozone levels that was so far out of line with existing models of ozone depletion that the scientists at first attributed it to human or instrument error. (One scientist speculated recently that the measurements were not believed at first because technicians rather than research scientists had made them.) But when measurements taken at a second station, at the Argentine Islands, about 1,000 miles to the northwest, corroborated the Halley Bay findings, the British team went public. Its report, published in a May, 1985, issue of the British scientific journal *Nature*,

concluded that as much as 40 percent of the ozone normally present in the stratosphere above Antarctica somehow disappears during twenty-two to thirty days every September and October. After a two-month absence it reappears, beginning in late November and resuming nearly normal levels in late January—there has been a slight overall depletion for several years. The scientists hypothesized that increased chlorine levels in the lower stratosphere, resulting from the industrial release of chemicals, might be associated with both the seasonal and the overall decline.

Chlorine acts as a catalyst in the breakdown of ozone—a single atom of chlorine can help turn tens of thousands of ozone molecules into an impotent pile of oxygen molecules. Most of the chlorine in the stratosphere comes from the breakdown by ultraviolet light of industrial chlorofluorocarbons, the notorious CFCs. That CFCs were affecting the ozone layer was hardly news. But the suggestion that CFCs could have caused such a rapid and sizable depletion of ozone above Antarctica, an area normally rich in ozone, made headlines. The Antarctic ozone hole, some environmentalists and scientists have recently suggested, should be considered an early warning of what is to come for the rest of the world if production of CFCs is not drastically reduced.

F. Sherwood Rowland, a chemist at the University of California, Irvine, is one of the most active promulgators of this view. Thirteen years ago Rowland and Mario Molina, then a postdoctoral fellow and now a senior research scientist at the Jet Propulsion Laboratory, in Pasadena, California, were the first to document the connection between CFCs and ozone. Their calculations, published in *Nature*, predicted that if chlorofluorocarbon production continued at the then current rate, from seven to thirteen percent of the ozone layer would be destroyed in about a hundred years, with devastating consequences.

Rowland and Molina's report set off a public movement against CFCs that led to a ban, in 1978, on their use in aerosol spray cans. After the ban ozone depletion faded from public notice. New mathematical models predicted that the effects of CFCs on the stratosphere would be less damaging than Rowland and Molina had forecast, and demand for CFCs went down. But starting in 1983, worldwide production of CFCs increased, and in 1985 even more sophisti-

cated models showed that the danger CFCs posed to the ozone layer was nearly as great as Rowland and Molina had predicted. The CFC controversy was revived in the scientific community, and the discovery of the ozone hole over Antarctica forced it back in the public eye.

Most scientists agree that the ozone hole above Antarctica is probably an isolated case, made possible by a coincidence of very specific circumstances that would not be possible in any other part of the stratosphere. Some go further and say that to suggest that the hole says anything about global ozone depletion is pure and dangerous speculation. Mark R. Schoeberl, an atmospheric scientist at NASA's Goddard Space Flight Center, in Greenbelt, Maryland, who has monitored atmospheric ozone by satellite since 1979, is one of these scientists. "I think that the atmospheric scientists who announced that the ozone hole was caused by CFCs made a very serious mistake," he says. "I'm amazed at how much people have lost their scientific objectivity because of political and funding pressures." The pressures he refers to come from the Environmental Protection Agency and a number of private environmental agencies that call for regulation of chemical production.

Schoeberl says that while he is convinced that CFCs do pose a danger to the ozone layer, he is also convinced that they are not the explanation for the ozone hole. He and a number of other scientists instead attribute the ozone depletion to dynamic forces, such as atmospheric winds. They cite as possible causes one or more cyclical weather effects—for example, the annual intrusion of a batch of tropospheric air, which is naturally low in ozone, into the stratosphere, where it pushes the ozone-rich air aside. Schoeberl says that satellite data bolster this theory, by showing increases in ozone concentrations in lower latitudes (at around 55 to 60 degrees latitude, west of South America) which correspond precisely with decreases above the South Pole.

Schoeberl and other dynamicists point out that the amount of ozone in any given place at any given season can vary widely. Ozone is created mainly in the tropics, where intense radiation from the sun breaks down oxygen molecules into their constituent oxygen atoms, which, in turn, unite with other oxygen molecules to form ozone. This ozone is then blown throughout the world. It

concentrates at the poles, where there is less intense radiation to disturb it. Dynamicists theorize that unexpected and dramatic changes in weather patterns, caused by volcanoes or other natural phenomena, could explain cyclic variations in ozone concentrations.

Solomon's report from Antarctica last fall, and other reports, concluded that the dynamic theory was incorrect on the basis of chemical measurements made inside the ozone hole, which showed very low levels of nitrous oxide. Nitrous oxide is found in relative abundance in the troposphere, and so an air mass that has moved from the troposphere into the stratosphere should have plenty of it. Schoeberl and other dynamicists point out that the measurements made by the Antarctic ozone expedition were made at twenty-five to thirty kilometers above the earth, whereas the top of the ozone hole is now agreed to be at least three kilometers lower. Solomon's denunciation of dynamic theories, on the basis of those measurements, seemed, to dynamicists, at best premature. Solomon in turn argues that additional measurements of air in the ozone hole show no traces of certain particles in the troposphere which, she says, should be present if the dynamicists are correct.

Dynamicists argue against chemical-theory supporters by accusing them of ignoring the decline, by 10 percent, of ozone levels in the entire Southern Hemisphere since 1979, and a rise last year in both ozone levels in the hole and CFC levels in the atmosphere. They also say that the chemical reactions required for CFCs to break down ozone at the rate occurring in the ozone hole, though certainly plausible in theory, have never been shown to work in the laboratory.

The debate over whether the ozone hole is caused by exotic chemical mechanisms or by the simple movement of air from one space to another continues. Most scientists say that probably a combination of these effects, perhaps in addition to some as yet unknown factors, is to blame. The partisans on each side agree that regardless of its cause, the ozone hole is the result of the interaction of several unusual conditions, not the least of which is the extreme cold of the Antarctic stratosphere. It is therefore unlikely that a hole of similar depth and longevity will appear where it can do any real damage. No studies have been done on the effect of the hole on the Antarctic biosphere. However, the

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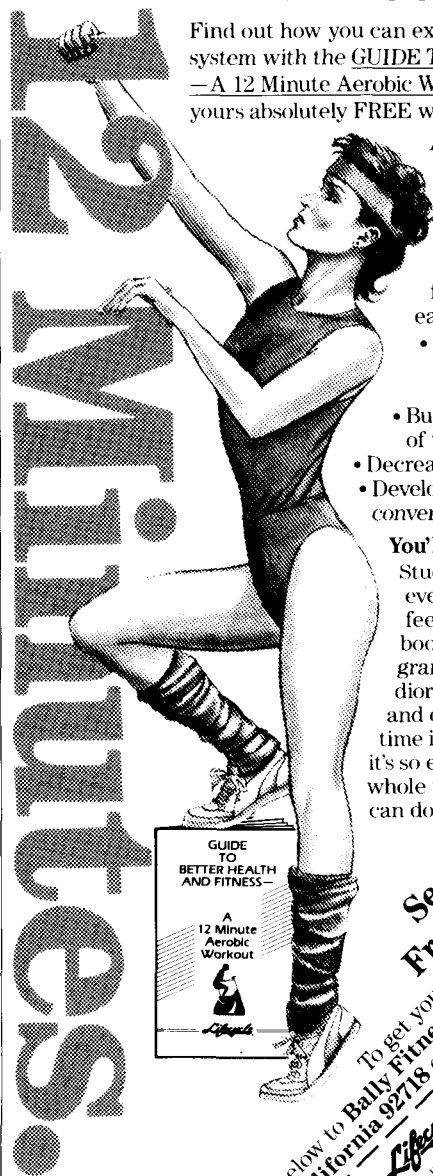


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sun shines so weakly over the region during the period of the ozone hole that there is relatively little UV-B to leak through, and thus scientists speculate that the effects, if any, are minor.

“NEITHER A CHEMICAL nor a dynamical explanation for the hole can be ruled out yet,” says Ronald Prinn, a professor of meteorology at the Massachusetts Institute of Technology. “But even if the chemistry up there isn’t important, most scientists would agree that CFCs are having a significant effect on *worldwide* ozone.” Prinn reflects the great concern in the scientific community that the debate over the cause of the ozone hole will distract the public from the very well documented effects of CFCs on stratospheric ozone. The most recent mathematical models show that overall levels of ozone might already have started to drop. The local depletion will vary according to latitude, with the most significant drops occurring at higher latitudes. By the year 2000, at current rates of CFC production, there will be about a 1.5 percent depletion at 40 degrees north, a latitude that slices through Boston and comes close to New York, Detroit, Chicago, Madrid, and Rome. By 2050, the models predict, there will be about a three-percent depletion at this latitude. No one knows what damage such depletions would cause. The same models predict a severe reduction of ozone at an altitude of forty kilometers above the earth, where, because of a general scarcity of other chemicals to temper it, the effect of chlorine on ozone is particularly pronounced.

These predictions have led the EPA to take a serious second look at the CFC issue, as its administrator, Lee M. Thomas, announced at a meeting in March of last year. The EPA will publish a final notice in the November *Federal Register*, in which it will almost certainly promulgate new regulations.

As part of the EPA’s investigation, a Stratospheric Ozone Subcommittee, which has been appointed to the agency’s Science Advisory Board, will review the effects of increased ultraviolet radiation on human health and on plants and animals. Margaret Kripke, the chairman of the department of immunology at the University of Texas Cancer Center, Houston, is the chairman of the subcommittee, which is currently reviewing a risk-assessment document that was prepared by the EPA staff last year. Kripke says that recent press reports claiming

that a 2.5 percent global ozone depletion would lead to an increase of half a million in the number of cases of skin cancer per year are premature. Increased exposure to UV-B is, however, strongly associated with an increased risk of basal- and squamos-cell carcinomas, generally nonlethal forms of skin cancer that appear as a roughening or thickening of the skin, usually on areas exposed to the sun. These nonmalignant skin cancers, which can be easily treated with surgery, medication, or radiation therapy, are the most common type of cancer—more than 400,000 new cases are reported every year in the United States. There is also strong circumstantial evidence that exposure to UV-B can increase the risk of malignant melanoma, a much less common and more dangerous cancer that now affects about 25,000 people a year. As for the effects of an increase in UV-B on plant life or on the food chain, Kripke says that there is not adequate information available to assess them. “There are surely going to be effects, but what they are or how great they will be, we really don’t know,” she says. “Part of the reason for our concern is that there is so much that we don’t know.”

The EPA’s renewed interest in the ozone layer, combined with an increase in pressure from environmental groups, has forced CFC producers to re-evaluate their position that no further regulations on CFCs should be set until science can establish beyond any doubt that ozone depletion due to CFCs is already under way.

CFCs—chemical compounds made of chlorine, fluorine, carbon, and sometimes hydrogen—are, in a sense, the mirror image of ozone. Ozone is a fragile molecule, subject to breakdown by any number of common chemical reactions. CFCs are so stable that nothing short of a direct hit by a beam of ultraviolet radiation can break them down into their constituent components. In fact, the ozone layer, in the stratosphere, protects CFCs from being broken down in the troposphere by ultraviolet radiation. This stability means that CFCs are extremely safe to be around—they are neither toxic nor flammable. The compounds were developed, by Thomas Midgley, a General Motors chemist, in 1928, as a refrigerant, specifically as an alternative to ammonia and methyl chloride, which are both flammable and toxic, and sulfur dioxide, which is highly toxic and corrosive. Once manufactured, CFCs tend to stick around—their stabil-

ity allows them to survive for decades, and since they are not water-soluble, rain does not wash them out of the air and the ocean does not absorb them. CFCs are now widely used in air-conditioners, refrigerators, building insulation, the blown foam used in cushioning (such as that found in car dashboards), packaging (such as the little boxes that fast-food hamburgers come in), food freezants, sterilants for medical equipment, and solvents in the microelectronic industry. The use of CFCs in fast-food containers and to clean computer chips has more than made up for the ban on their use in aerosol sprays in the United States, Sweden, Norway, and Canada. CFC production is as high as it ever has been, and it is expected to increase further as the world economy improves, unless it is checked by international regulations. As one industry spokesman says, “The Chinese are sure anxious to get those refrigerators.”

THE FAMILY OF CFC compounds is large, and not all of its members pose a danger to the stratosphere. Of particular concern to environmentalists are CFC 11, CFC 12, and CFC 113. These compounds are particularly stable, and almost all of them eventually find their way into the stratosphere, where the ultraviolet radiation causes them to release their ozone-destroying chlorine. But there are alternatives to these chemicals, one of which, CFC 22, is already in widespread use in home air-conditioner units.

CFC 22 contains a hydrogen atom that causes it to break up in the lower atmosphere, long before it can reach stratospheric altitudes. The Du Pont Company, the world’s largest manufacturer of CFCs, developed CFC 22 and made it commercially available in 1936. According to Joseph M. Steed, the environmental manager for Freon products at Du Pont, although most home air-conditioners already contain CFC 22 refrigerants, manufacturers of automobile air-conditioners and refrigerators won’t use CFC 22, because it requires higher temperatures and pressures to be effective than does CFC 11 or CFC 12. “What they want,” Steed says, “is a magical compound that acts just like CFC 11 and CFC 12 but without the ozone problem.” Du Pont is currently looking at two compounds, CFC 123 and CFC 134a, that it says might fill the bill. But so far these compounds have not been tested for effectiveness or safety and,

Steed says, they will both require five to ten years of development. At present there is not even enough CFC 123 or CFC 134a in existence to run the necessary tests. Du Pont wants to be given a reason for producing more—namely, market incentives prompted by government limits on CFC production. “Right now we don’t think the science justifies a complete phase-out of existing CFCs,” Steed says. “We don’t see a problem at existing levels of CFC production, even though we do see a problem with growth.”

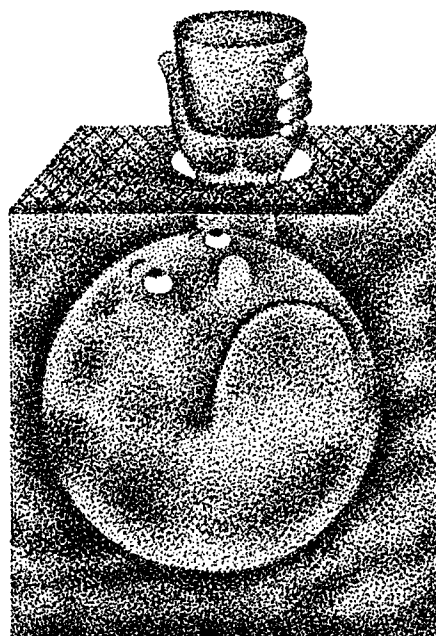
The Environmental Protection Agency, the Environmental Defense Fund, and the Natural Resources Defense Council have already made clear that they do see a problem with existing CFC production levels. At an international meeting held in Geneva last December under the auspices of the United Nations Environmental Program, the United States urged that the production of dangerous CFCs, and any other chemicals that could potentially deplete stratospheric ozone, immediately be restricted worldwide to current levels and be reduced by 95 percent in the next decade. This position was too strong for the European Economic Community countries and Japan, also major CFC manufacturers. They agreed to consider the freeze, but when the American delegation refused to compromise on the reduction issue, negotiations broke down.

American attitudes have not encouraged an agreement. The breakdown has been characterized as a lack of will on the part of the Japanese and, especially, the Europeans, who, a *New York Times* editorial pointed out last December, “cannot even muster the resolve needed to remove CFCs completely from deodorant sprays.” Some environmentalists go so far as to attribute the European position to sheer lack of understanding. “The Europeans are from five to ten years behind the United States on most public health and environmental issues,” says David Doniger, a senior attorney for the Natural Resources Defense Council, who was an observer at the Geneva meeting. “Until the December meeting I really think European industry considered the CFC problem to be nothing more than science fiction.”

Michael Oppenheimer, an atmospheric scientist with the Environmental Defense Fund, suggests another explanation. “In Europe there are still many small [industrial] users of aerosols, for instance, that could die in a transition to

CFC alternatives,” he says. “On the other hand, a company like Du Pont could easily benefit from the change.” If Du Pont is first to come out with a substitute CFC—which is possible, considering that the company has already invested millions in the search—then it could be on its way to dominating the market. Furthermore, a cap on international production of CFCs would not necessarily affect Du Pont’s own production. Some people are concerned that a cap might simply prevent new producers from going into the business, leaving an oligopoly in which a few producers could set the prices.

Meanwhile, other U.S. producers show no inclination to cut back on CFC production. Allied-Signal, the nation’s



second largest CFC producer, dispatched sales teams around the country last summer to encourage electronics manufacturers to switch to CFCs from other solvents. Kevin Fay, the executive director of the Alliance for Responsible CFC Policy, a lobbying group made up of producers and industrial users of CFCs, says, “If the science tells us we have to reduce emissions to zero, we will do it, but that hasn’t happened yet. What we’re asking for now is that science give us a comfort level, a consensus on how much we can safely produce. But the science has been on a roller coaster for more than ten years.”

Manufacturers imply that increases in tropospheric ozone caused by pollution offset decreases in stratospheric ozone, making the total ozone loss insignificant. Scientists call this a subterfuge and

counter that net loss is not the urgent issue—the decrease in stratospheric ozone could be large enough to have enormous effects on the biosphere. Also, stratospheric ozone depletion does not occur uniformly around the globe. An average depletion of four percent may well mean a loss of only one percent in tropical regions but a loss of six percent in northern latitudes.

The issue now is not whether CFCs should be regulated but how much and how soon. Some say that the United States recommendation for a gradual phase-out of CFCs is extreme, and others worry that by holding to that position we might discourage other countries from agreeing to any regulation. CFCs do play an important industrial role—the solvent that CFC 113 has replaced, for example, is carcinogenic, and the Japanese computer industry, which only recently switched to CFC 113, is not eager to switch back.

Robert Watson, the acting program manager for NASA’s Upper Atmospheric Research Program, says that America’s new fervor to regulate CFCs is a consequence not only of scientific findings but also of political pressures. Since ultimately any meaningful decision to regulate CFCs must be made internationally, he says, we must recognize that other nations have different priorities and may not feel the same urgency on the issue.

“The issue of the moment, of course, is the ozone hole, but any country in the world that makes a policy decision based on the hole is making an error,” Watson says. “There’s just too much we don’t know about it now.” The latest international negotiations, which took place in Vienna last February, show the Europeans and Japanese to be more open than they had been to freezing CFC production. However, Watson and other scientists warn that speculation over the cause of the ozone hole must not be used to push negotiations to move faster or further than they would otherwise go. To do so, they say, could set CFC regulation back decades, especially if it is eventually found that the dynamic theory largely explains the ozone hole. For even if the ozone hole were magically filled tomorrow, the world would be left with a nagging, though far less dramatic, specter of global ozone depletion. The thinning ozone over the South Pole should be considered not a harbinger but a reminder of the atmosphere and man’s prodigious ability to alter it.

—Ellen Ruppel Shell

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refreshing idea. Especially if it's one of the
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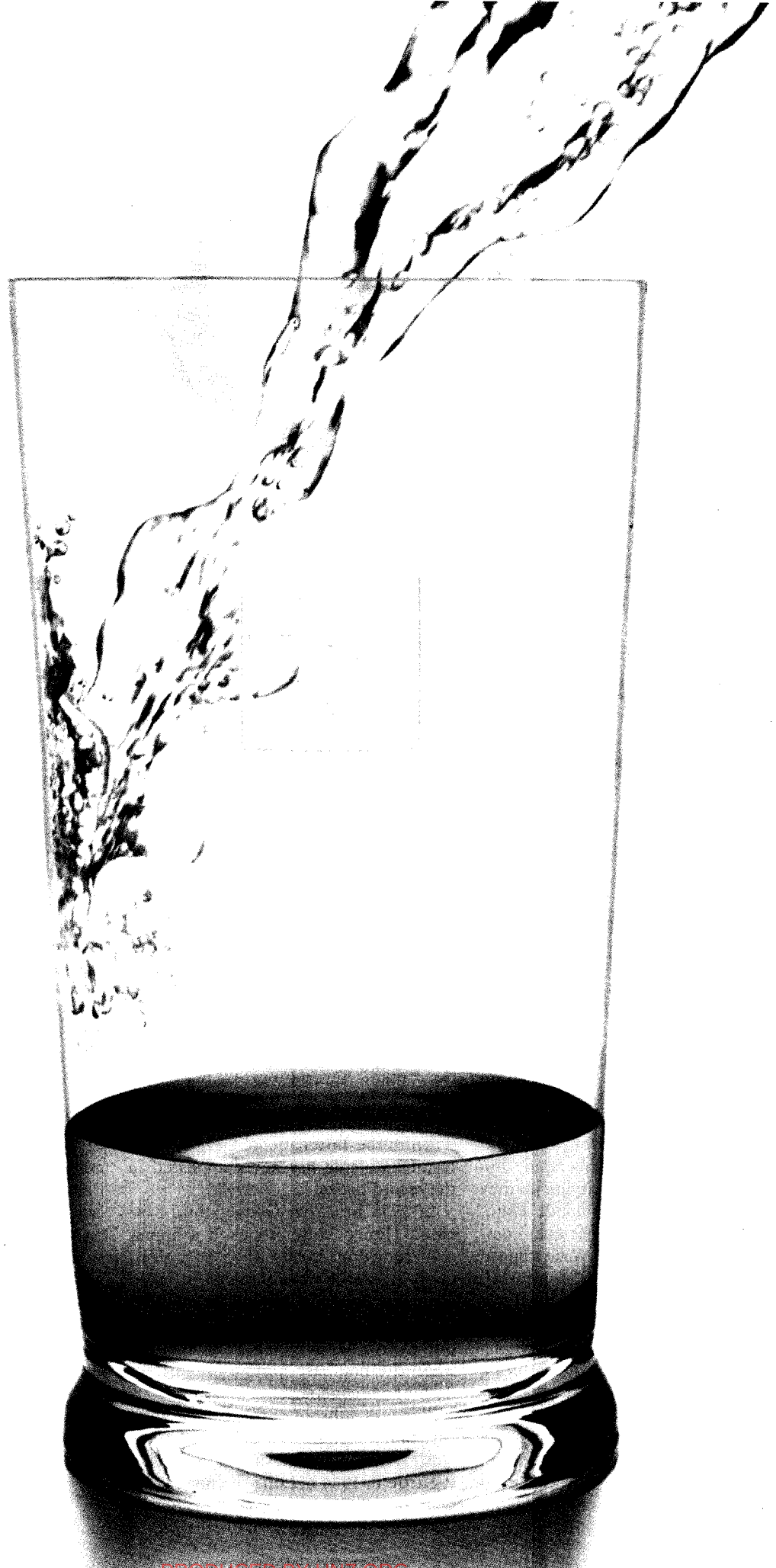
A gold rum from Puerto Rico not only
feels good going down, it delights any taste-
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You won't really be breaking tradition.
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THE SPIRIT YOU'VE BEEN LOOKING FOR.

RUMS
OF
PUERTO
RICO



GREAT MOMENTS IN LITERARY BASEBALL

BY ROBERT ATWAN

The centrefielder cannot hold. . . .

—Willie Yeats

NEW YORK MOUND artist Henry James, Jr., made baseball history in the first game of the 1910 season when he became the only pitcher ever to issue an intentional walk to the lead-off batter, Said James, "I prefer the extra complication."

In the second game of a double-header in Detroit in 1919, the Boston first-base coach began pointing his finger at the mound and gesturing wildly as Detroit pitcher Frank Kafka started his delivery. The home-plate umpire went out to the mound to ask Kafka what the hell he thought he was doing. Kafka protested that he had not committed a balk. The umpire said that a balk was not the issue and ejected Kafka from the game. The following day, after a short inquiry conducted by the American League commissioner, Kafka was permanently suspended from organized baseball. The commissioner never disclosed the nature of Kafka's violation.

At the hour of twilight on a soft summer day toward the end of June in the year of Our Lord 1929, towering, barrel-chested St. Louis slugger Tommy Wolfe marched to the plate with the score, incredibly, tied in the bottom of the ninth inning and two outs. With a furious swing that thundered with the sound of a million bats hitting a million baseballs, Wolfe drove the ball high into the all-engulfing American sky. It seemed to take an eternity both for the left fielder to retrieve the exhausted baseball and for Wolfe to pursue, despite his rapid, loping strides, the always terrifying journey around the illimitable diamond. Then, for a reason that no one has ever completely understood, Tommy Wolfe stopped dead at third. "Home! Go home!" screamed a million voices. But Wolfe knew better. The next day he retired from baseball.

Hit in the shoulder by a pitch during an exhibition game in Key West, Florida, in 1933, Cubs catcher Ernie Hemingway refused to take first base. The next pitch hit Hemingway in the nose. Hemingway stood his ground. The third and fourth pitches hit him in the shin and the ear respectively. He dug in

deeper, though in noticeable pain. The fifth pitch felled him. The home-plate umpire allowed the seriously injured Hemingway to be carried to first base on a stretcher.

In 1936 Jorge Luis Borges, pitching for the Washington Senators, threw a slow curve ball to the first hitter he faced in relief. The ball never arrived at the plate. In 1945 a ball clearly not thrown by the pitcher was swung on and missed by Brooklyn left fielder Luis Olmo. Olmo later testified that it was definitely an American League baseball.

Pittsburgh right fielder "Lucky" Sam Beckett, in his first major-league game, in 1949 set the National League record for the longest wait in the on-deck cir-



cle. Beckett never did get up to bat, the game being called on account of rain. The next day Beckett was sent back down to the International League. As a result his name has never appeared in the record books.

In 1955 Brooklyn Dodger third-base coach Henry Miller shocked a hometown crowd of 22,000 when he walked out to the coach's box completely naked during the seventh-inning stretch. Though permitted to remain in the ballgame, Miller was later ejected when the first-base umpire caught him flashing obscene signs to a base runner. Miller was subsequently banned from baseball.

All-star Cincinnati shortstop Johnny P. Sartre in 1964 became the first major-leaguer to refuse the Most Valuable Player Award. Sartre declined the presti-

gious award because of his long-standing opposition to the infield-fly rule. He denounced the rule, claiming that it severely limited human freedom and that it introduced into the game "a momentary paralysis in the midst of movement—all play suddenly assumes an automatic quality." The lifetime .350 hitter had made news several years earlier when he referred to the Ground Rule Double as an "absurd bourgeois convention."

In 1965 Twins player-manager Vladimir Nabokov obtained league permission to play a game in reverse, beginning with the ninth inning. Nabokov admitted that except for using his ace relief pitcher in a starting role, the game progressed no differently from any conventional game. It ended, however, in a tie that was never resolved, because the team managers failed to agree on how to number the extra innings. Nabokov's proposal that they employ negative innings was dismissed as frivolous.

Batting against the Yankees on August 12, 1969, Indian centerfielder Gabriel García Márquez hit the longest home run in baseball history. According to fans in the left-field bleachers, as the ball reached the upper deck it suddenly sprouted wings and floated high over the stadium. The ball was reportedly picked up by a very old man in the parking lot who was never seen again.

During a 1978 contest for last place being played under protest in a constant drizzle Atlanta second baseman Harry Pinter signals time out and stoops to tie his shoelace. He misses a hard-hit ground ball and is charged with an error. Pinter (moving toward first) says that he called time. *A long pause.* The second-base umpire claims that he misunderstood Pinter's signal—he thought he was batting away a bug. *Silence.* Another hard grounder shoots past Pinter and a big *E* appears on the scoreboard. Pinter (moving toward second) says he thought play had been stopped to discuss the misunderstood signal. *A long pause.* The umpire maintains that Pinter did not call time out to do so. As Pinter (moving toward first) turns to ask the first-base umpire what is happening, another ground ball bounces by. *A long silence.* The few remaining fans begin drifting to the exits. □

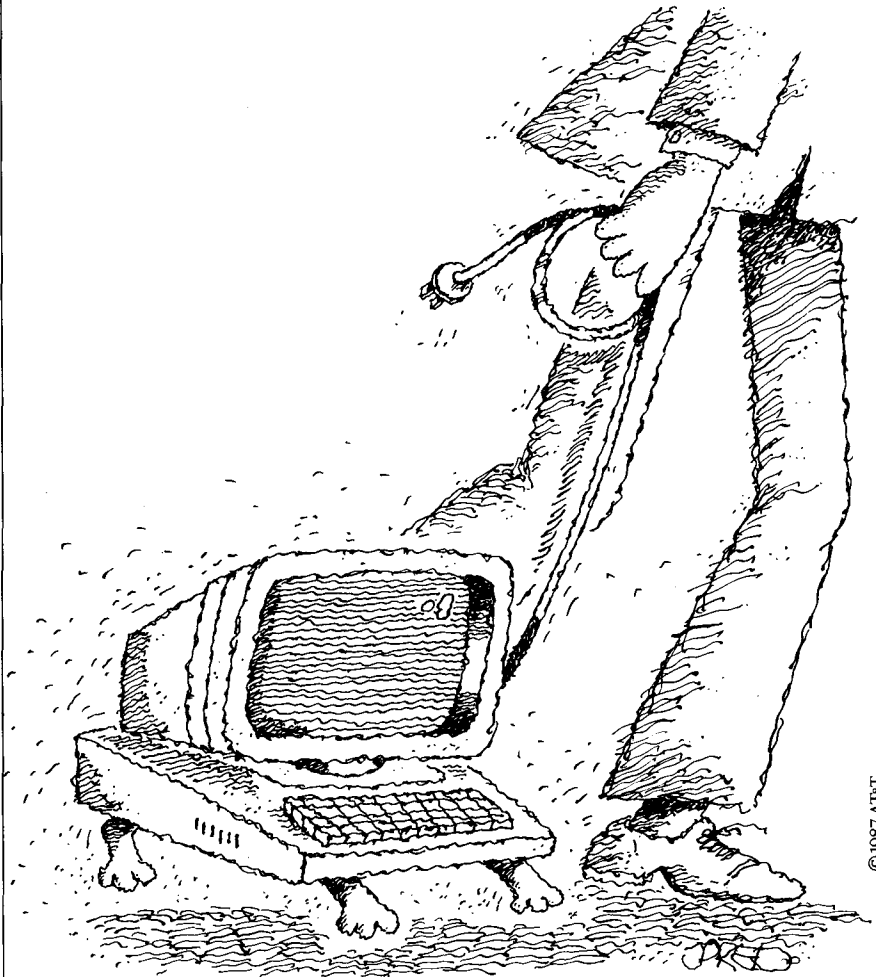
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The Information Age, for all its potential, has brought with it a new kind of problem. Often, the machines that contribute so much to the flood of information do little to help most of us cope with it. They are difficult to use, rigid in their demands, almost arrogant in their inability to work with any but their own kind. They are the muscle-bound tools of specialists.

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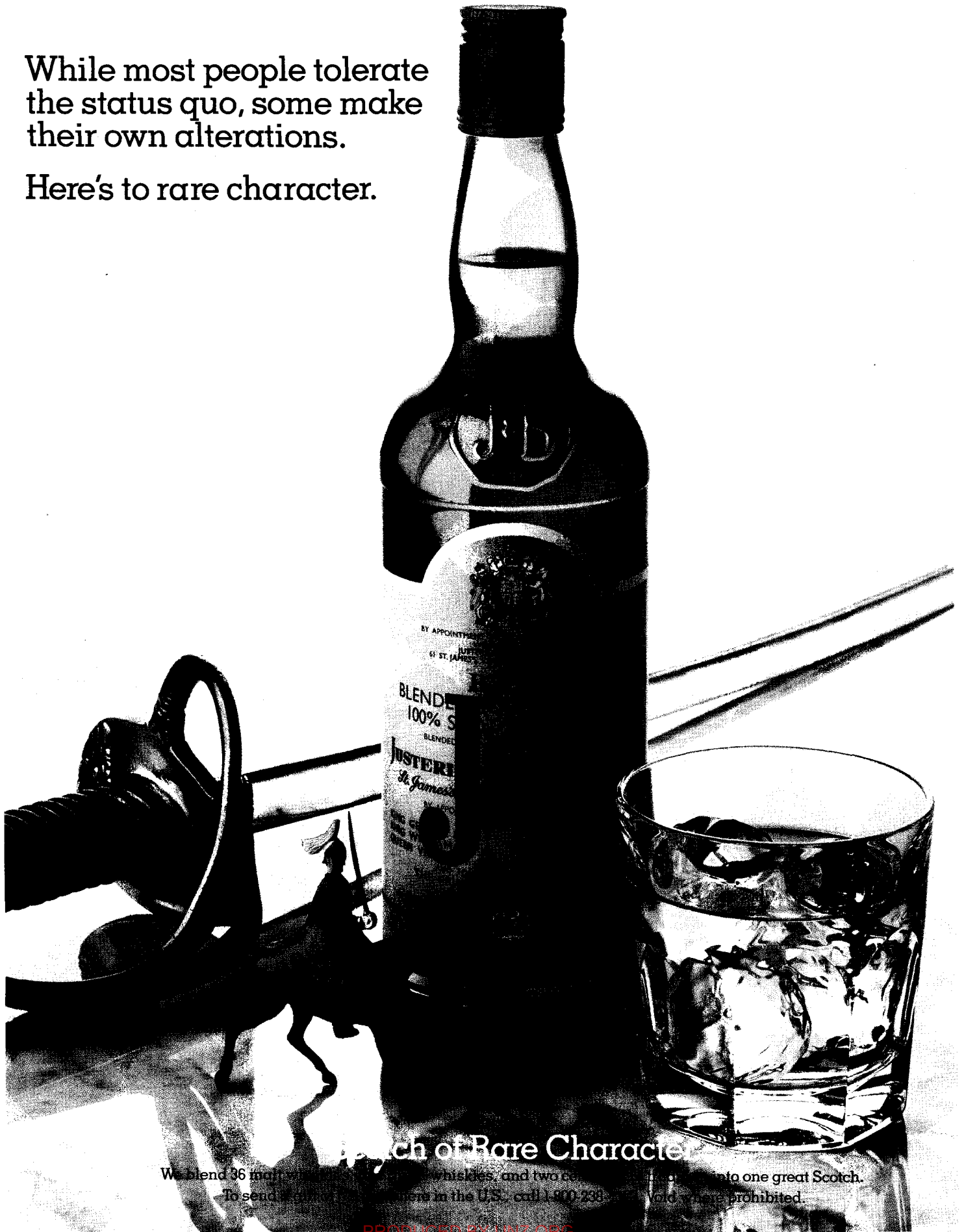
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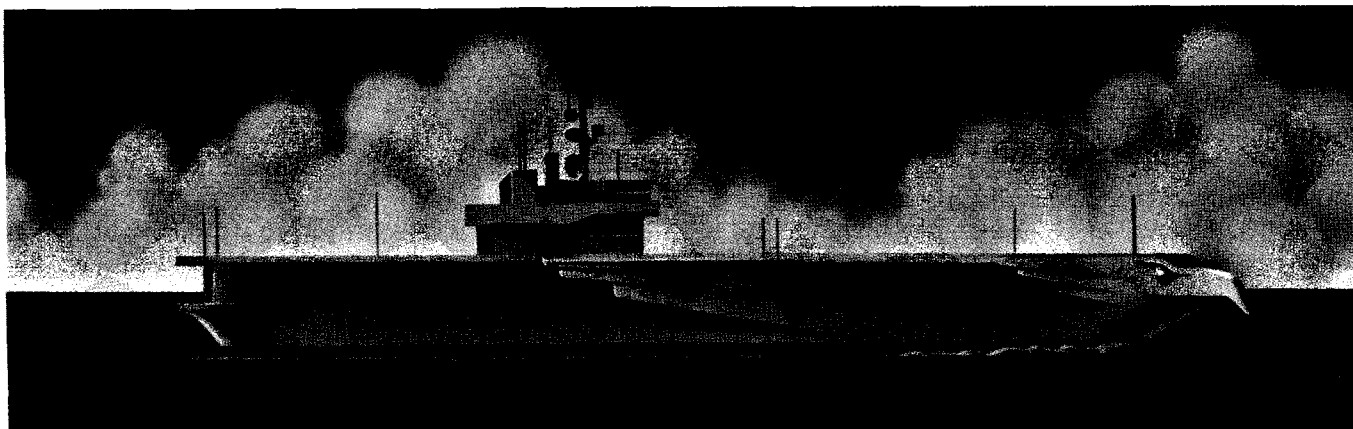
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*The Navy's new strategy for global conventional war is aimed at scaring the Soviets,
but it should scare us, too—it could lead to global nuclear war*

IN HARM'S WAY

BY JACK BEATTY



I hope Gary Hart's book gets a big sale . . . in the Soviet Union.

—John Lehman

IT IS CALLED "THE MARITIME STRATEGY," AND IT MAY be the most important innovation in naval warfare since the Second World War. It is certainly the most controversial. Aside from the Strategic Defense Initiative, which is thus far only in its chrysalis stage, the maritime strategy represents *the* major change made in United States war planning by the Reagan Administration. This change has been labeled unnecessary, reckless, profligate with the dwindling exchequer, and a sure way to erode the fire-break separating conventional from nuclear war. Its critics have included the liberal military reformer Gary Hart, the conservative strategist Edward Luttwak, and the professional navalist Admiral Stansfield Turner. Its defenders are drawn mostly from the ranks of the men who now live by this strategy, as in war some of them would die by it: the serving naval officers and the civilian strategists brought into the Pentagon by John Lehman, who has just resigned after serving as Secretary of the Navy for the first six years of the Reagan Administration.

Although Lehman has been credited with devising the maritime strategy, it was not born in his bathtub. He did, however, marry it to an ambitious re-armament program that he had backed even before becoming Secretary—one aimed at building a 600-ship Navy, including 15 aircraft carriers, by 1989—and he became the strategy's most public advocate and controversialist. According to the Navy, the father of the maritime strategy is Admiral Thomas Hayward, who during the seventies was the commander-in-chief of the United States Pacific Fleet. Surveying his

responsibilities in the lees of the Vietnam War, Admiral Hayward saw a convergence of two discouraging trends: the decline of the U.S. naval forces from 5,718 ships (including 98 aircraft carriers) in 1945 to 460 ships in 1977, and the dramatic increase in Soviet naval strength and reach—to Vietnam, Syria, Angola, Ethiopia, South Yemen, and Cuba. In a May, 1979, essay in the *Proceedings* of the U.S. Naval Institute, Hayward called for a venture-some use of U.S. naval forces in any future war with the Soviet Union. Only by seizing the initiative early in such a war, he argued, could the Navy make up for the disparity between its shrinking resources and the growing threat. Hayward's call for a strategic rethinking fell on favorable ears in the Reagan Administration, which had entered office pledging to restore U.S. defenses, and after a two-year study the Navy announced key elements of its new strategy in February of 1983.

Critics of the maritime strategy point to a second, unstated fear driving it—not of the Soviet Navy but of the U.S. Congress. In their version, the intellectual case for the maritime strategy received a mighty institutional push when in 1979 an official of President Jimmy Carter's Office of Management and Budget, Randy Jayne, gave a lecture at the Naval War College that struck fear in the hearts of the admirals. Jayne warned the Navy that it had better come up with a strategic rationale to justify its budget requests at a time when restoring the credibility of our ground defense of Europe was an urgent priority of U.S. foreign policy. Either that, he said, or the Navy would shrink further. Their minds thus concentrated, the admirals devised a strategy that justifies procurement of state-of-the-art weaponry in the name of deterring the Soviet

Union from invading our NATO and Western Pacific allies.

By now the maritime strategy has an all but unstoppable institutional momentum behind it—one driven by money appropriated by Congress for Lehman's 600-ship Navy but not yet spent—that has given force and flesh to the theory and that will give more to it in the decade ahead. In short, the maritime strategy, unlike Star Wars, is a reality. When Alexander Haig was still the NATO Commander, he remarked that the next big war would be a "come as you are" affair. Should that war break out tomorrow, the maritime strategy is how the Navy will go. It will go, above all, "in harm's way." Visitors to the Naval War College, in Newport, Rhode Island, hear that bit of nautical bravado again and again. The harm referred to is formidable indeed, for the maritime strategy is the Navy's template for global conventional war with the Soviet Union.

As recently as the Carter Administration, the Navy's main job in the event of a conventional war in Europe was to serve as a transatlantic ferry for the Army, and, at the extreme of derring-do, to practice "defensive sea control" against Russian submarines. These are not missions that consort with glory, and the Navy has now found one that does. It is to leave a good deal of the ferrying to our European allies and to switch the main emphasis from defense to offense. A naval offensive against a land power the size of the Soviet Union may sound absurd, but it is daring beyond all cavil. More, it has a warrant from history.

At congressional hearings and in War College lectures the Navy reproduces something it refers to as the "measles chart"—a map of what it hopes to avoid in the next war by striking at Soviet submarine bases and water bastions. The dots on the chart signify the Allied ships sunk from January to July of 1942, for the United States the very beginning of the Second World War. There are 450 dots, and they represent the work of only fourteen U-boats. Attrition of that order was sustainable in 1942, the Navy says, because the United States had 5,000 ships in its merchant fleet. Today it has 465, or roughly one and a half ships per Soviet submarine. The Soviet subs are based at a number of ports on the Kola Peninsula, which is in the extreme north of European Russia; and, in the Soviet Far East, at the ports of Vladivostok and Petropavlovsk and in the protected waters of the Sea of Okhotsk.

The first objective of the maritime strategy is to destroy the Soviet subs in their bastions before they can "surge" out into the untrackable reaches of the Atlantic (32 million square miles) or the Pacific (63 million square miles), where they would frustrate the effort to resupply the NATO forces fighting on the Central Front in Europe by cutting the sea lines of communication—SLOCs—connecting the United States to Europe, or cut Japan's oil lifeline from the Persian Gulf and supply lines between America and Japan. The naval offensive against the sub bases can be understood as preventive medicine: a vaccine against another outbreak of measles.

The second objective of the maritime strategy is to pin down Soviet ground and tactical air forces at the far-flung

edges of the Russian land mass, and thus keep them from being shifted to what would be the critical battle along the Central Front in Europe. This mission is sometimes discussed under the rubric of "horizontal escalation," as opposed to "vertical escalation" from conventional to nuclear war. Horizontal escalation would entail a series of conventional naval and amphibious attacks on the Soviet mainland—the Soviet Far East, the Black Sea, and the Baltic Sea are regularly mentioned—and on (belligerent) Soviet proxy states around the world, as well. In short, horizontal escalation threatens the Soviets with what Defense Secretary Caspar Weinberger has called "worldwide war."

The mere threat of worldwide war, the Navy argues, strengthens deterrence. Should deterrence fail, and the Soviets invade Europe, worldwide war would help NATO win the ground battle in Europe by limiting the forces the Soviets could deploy there.

When the third objective of the maritime strategy was announced, in January of last year, in a white paper published in the *Naval Proceedings*, it made headlines. It is to destroy not only the Soviet attack submarines (SSNs), which can spread the measles, but the Soviet ballistic-missile submarines (SSBNs), which can unleash nuclear annihilation. According to Admiral James D. Watkins, the former chief of naval operations, an attack on the Soviet SSBNs would reduce "the attractiveness of nuclear escalation by changing the nuclear balance in our favor." He writes, "Some argue that such steps will lead to immediate escalation, but escalation solely as a result of actions at sea seems improbable, given the Soviet land orientation." In other words, because roughly two thirds of the Soviet nuclear deterrent is in land-based missiles (where about one fifth of the U.S. deterrent is), attacks on the SSBNs would not panic the Soviets into launching tactical nuclear strikes against the Navy ships menacing their SSBNs or strategic strikes at missiles based in Europe or the continental United States. Through the fog of war the Soviets would somehow see that our anti-SSBN campaign was not the opening phase of a first strike against their nuclear deterrent. They would, paradoxically, recognize that it was a defensive strategy, aimed at keeping the conventional war from escalating into a nuclear one.

In addition, the Navy claims, the campaign against the Soviet SSBNs would give the West a stick with which to prod the Soviets into quitting such of Western Europe as they might have seized. Continue your conventional attack on NATO and you will suffer the impairment of one leg of your land-sea-air nuclear triad: that, the Navy argues, is the choice with which the Soviets would be confronted. (The reader will note a robust contradiction in this thinking. On the one hand, the Soviet SSBNs are said to be expendable, "given the Soviet land orientation." On the other, destroying these expendable assets would suffice to force the Soviets into giving up any ground they had won and calling off the war.)

Fears that changing the balance of nuclear forces against the Soviet Union will lead to escalation are "based on a

misreading of Soviet doctrine," writes Captain Linton F. Brooks, a Navy officer now serving on the staff of the National Security Council, in much the strongest defense of the maritime strategy. To quote from his article in a recent issue of *International Security*:

Not only have the Soviets long accepted anti-SSBN operations as a legitimate military task (and one they would undertake were they able to do so); they have also long assumed that the United States will conduct such operations in time of war. Such an assumption is reasonable from the Soviet standpoint, both because of doctrinal mirror-imaging and because senior naval officers giving Congressional testimony have consistently stressed the practical difficulties of distinguishing between types of submarines and have indicated that all types of submarines would be legitimate wartime targets. Thus, while in the West the explicit acknowledgment that attacking SSBNs was a component of the overall Maritime Strategy was news, in the Soviet Union it was not.

The maritime strategy was conceived against the background of a "change in the global military balance of power that has been surpassed only by the advent of thermonuclear weapons," in the words of John Lehman. That change, as we have seen, is the growth of Soviet naval power and the regular deployment of Soviet ships to "contentious and vulnerable chokepoints" and major sea-lanes in all the oceans of the world.

Historically, wooden ships being frangible by ice, Russia was never much of a naval power. Catherine the Great may have recruited John Paul Jones to command her warmwater Black Sea Fleet, but the American habit of victory at sea did not catch on in Russia, which saw two of its fleets sunk in the 1904–1905 war with Japan and whose Navy thereafter was notable chiefly for furnishing the Bolshevik Revolution with sailors bored to mutiny by being so long confined to port while the First World War raged all around them. In the Second World War the Navy's role, as one writer puts it, "was sufficiently marginal for 400,000 sailors to be drafted to serve as foot soldiers in the vital land battles." But under S. G. Gorshkov, appointed Admiral of the Fleet of the Soviet Union in 1956 and retired only in 1985, the Soviets built up their fleet considerably. Indeed, their ships now far outnumber ours, though the actual numbers—Navy spokesmen testifying before Congress give estimates ranging as high as 1,700—are mischievous. Edward Luttwak's recent *Pentagon and the Art of War* shows why: "For the Soviet Navy, one ship list prepared by the U.S. Navy shows 1,324 'surface combatants,' as against its own 285 surface warships; 367 submarines, as against 99; and 770 auxiliaries, as against its own 105 logistic and support ships. The figures are, of course, grossly inflated, but even the most sober count that excludes the old, the inactive, and the small would still list 290 major Soviet surface warships [and] 119 nuclear and 157 diesel attack submarines." However numerous, Soviet vessels do not appear to be of high quality. "Soviet ships are so unreliable that only one ship in five is ever actually underway,"

one source says. "Even on patrol they spend much of their time at anchor or breaking down and being towed." Nor do the Soviets appear to give tender thought to the convenience or safety of their sailors, particularly in their nuclear-powered ships. The defense writer Andrew Cockburn claims that "old sailors' homes in Russia have hairless inmates"—sailors who have been exposed to depilating doses of radiation—and he retails a joke told by sailors in the non-nuclear Baltic Fleet about their brothers in the nuclear Northern Fleet:

Q: "How do you tell a man is from the Northern Fleet?"

A: "Because he glows in the dark."

There is, however, nothing funny about the Soviets having the largest fleet of strategic-missile-carrying submarines in the world: 64 boats fitted with just under 1,000 nuclear-tipped missiles, some of which have a range of 8,300 kilometers (we have 37 submarines carrying nuclear missiles). These SSBNs alone make the Soviet Navy a formidable force.

There is nothing more terrifying than ignorance in action.

—Goethe (on a wall plaque at the Naval War College)

THE REAGAN ADMINISTRATION HAS BEEN ACCUSED of lacking strategic vision, of engaging in a directionless debauch of dollars these past six years. That charge is unfair. The Strategic Defense Initiative is the boldest departure in nuclear strategy in a generation. And the same could be said of the maritime strategy in the field of conventional war. Captain Brooks, of the NSC, is not boasting when he says that "a renaissance of strategic thinking has been taking place within the U.S. Navy."

That renaissance has been incubated at the Naval War College, a complex of stark buildings sited on the flanks of Narragansett Bay. Since its curriculum was toughened by Admiral Stansfield Turner, in the early 1970s, the War College has become intellectually adventurous. Through it every year passes a cadre of the Navy's brightest officers, who are obliged to study wars ancient and modern, as well as to attend to the strategic theories of Carl von Clausewitz, Julian Corbett, and the totemic Alfred Thayer Mahan. To teach these experienced students, the War College has hired some of the country's ablest military historians and strategic-studies specialists. It invites distinguished lecturers representing many different points of view to hold seminars and give lectures. While I was visiting the college not long ago, William Lind, one of Gary Hart's defense advisers and the co-author of *America Can Win*, spoke at a seminar. This was an act of extraordinary intellectual generosity on the part of the War College, since Lind is among the sharpest critics of the big-carrier Navy, and he is widely execrated among its officers. "We are today building, not a navy, but the world's largest and most expensive naval museum," Hart and Lind write in *America Can Win*. "The basic problem is simple. Our only serious naval opponent is the Soviet navy. The Soviet navy

is primarily a submarine navy. Our current navy, built around big aircraft carriers, is largely irrelevant to the task of fighting submarines."

Besides intellectual openness, the most notable feature of the Naval War College, to me, was the offense-mindedness of the officers in the seminars I sat in on. Now, at a war college you'd expect to hear more virile talk than at a conclave of the Americans for Democratic Action. Still, I also sat in on classes at the Army War College, and the Army's future leaders seemed to me to think in markedly more defensive terms than their opposite numbers in the Navy. (Their attitude is understandable, since the Army's mission is to defend NATO territory, but then, that is supposed to be the Navy's mission too.) I wish that I could convey this attitude in a more impressive way than by means of an anecdote, but I cannot. The anecdote, however, is resonant of a whole way of thinking.

It was told by a Marine Corps colonel about Admiral Kidd, the raffishly named former Commander of the Atlantic Fleet. A Soviet ship, steaming through a formation

of U.S. ships during the mid-1960s, rashly pointed its guns at Admiral Kidd's ship. The Admiral immediately ordered his men to take up their battle stations and trained every gun on the Soviet ship, now passing close by. "Do you want to start World War Three?" the startled Soviet captain signaled Admiral Kidd. "If I do," that dauntless seaman replied, "you will be the first to know." The class laughed heartily at the punch line. I did too. Later, though, my timid civilian heart reproached me, giving me sober second thoughts about the Admiral's audacious retort on the brink of war.

From incidents like that, and from conversations with teachers and officers, I came away from the War College with the impression that being a soldier of deterrence cannot be easy. All this talk about preventing war goes against the motivational springs of the profession of arms. Much more satisfying to change the subject to the lustier one of fighting, and winning, a war. One of the uses of the maritime strategy, to the Navy if not to the nation, is that it spurs morale. This grand offensive theory (which, to be clear about it, contemplates a naval attack on Russia in response to a Russian attack on Europe) helps to establish institutional esprit. The weary naval officer goes to bed at night having bent his brain all day to a scheme of victory. As we shall see, there is some doubt whether the President would allow the Navy to put its war plans into action. But the plans are there, in the minds of the officers and on the drawing boards of possibility, and they give off a compelling charisma. This alone gives the Navy a powerful interest in holding on to them. That institutional interest, in turn, may account for what students of strategy call motivated bias in the Navy's vision of how things will go in the next war.

Motivated bias is seeing realities as you need to, for institutional reasons, and not as they are. Chief among the great instances of motivated bias in military history are the offensive war plans drawn up by the Great Powers before the First World War. In making this comparison, I don't mean to be portentous; 1987 is not 1914. Still, among the reasons that 1914 remains such a symbol of cataclysm is the way the offensive war plans of the Great Powers caused a local crisis to escalate into general war.

Those war plans rested on a belief in the ineluctable superiority of the offense over the defense. In words that could have come from a Naval War College lecture on the maritime strategy, General Alfred von Schlieffen, the author of Germany's war plan, laid it down: "Attack is the best defense." The general who would implement Schlieffen's plan in 1914, Helmuth von Moltke, held to the same principle. In France, Moltke's future antagonist at the First Battle of the Marne, Joseph Joffre, the Chief of Staff of the Army, wrote that his service "no longer knows any other law than the offensive. . . . Any other conception ought to be rejected as contrary to the very nature of war." The French Army, Marshall Foch maintained, had "a single formula for success, . . . namely, the decisive power of offensive action undertaken with the resolute determi-

FROG

can't help herself, goes in and out of water
all day long. The reed wags like a finger,
the slick patch of algae shrugs and stretches—
Make up your mind.

They have the luxury of just one life.
Frog would like to venture into the weeds, or further still,
but her skin dries, too much open air is like a poison.
Underwater, confident again, Frog
keeps her legs together
to imitate the missing tail, she circles the long trout,
plunges down to the sweet familiar ooze—
but Frog is always too soon out of breath
and must return to the bright element
where the other land-fish line the banks,
huge and slow, picking their teeth. Close by,
in the blurred trees, new rivals have been hatching.
Frog takes up her perch where the linked bubbles
decorate the wet hem of the pond.
She sits and sits, like a clod of grass, her eyeballs
fixed and glassy, the slim tongue uncurls, curls
in her mouth: although she cannot fly
she eats what does. And then,
staring down into her losses, into the pool
that swaddled her among her mute companions,
Frog fills her throat with air and sings.

—Ellen Bryant Voigt

nation to march on the enemy, reach and destroy him.” The British military, Stephen Van Evera writes in an illuminating essay in *International Security*, “rejected defensive strategies despite their experience in the Boer War which demonstrated the power of entrenched defenders against exposed attackers.” A British general of the period wrote, “The defensive is never an acceptable role to the Briton, and he makes little or no study of it.” Even in Russia, which had beat back Napoleon’s invasion on the defensive, the “cult of the offensive,” as Van Evera terms it, took hold.

In his book *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914*, Jack Snyder shows how this cult biased the powers’ reckoning of the risks involved in taking the offensive. Their fundamental mistake, put in the center of their war plans like a magnetic north of error, was to view “the necessary as possible.” It was, for example, necessary for Germany to defeat France in one great battle in order to be able to switch troops from France and send them against Russia, the enemy on Germany’s eastern border. It was just not possible. The German war planners indulged in “needful thinking” about the realities of warfare in the age of the locomotive and the machine gun, to name two of the technological developments that had tipped the balance to the defense.

This rough logic applies to the Navy’s plan for victory in Europe. According to one commonly held view, the conventional defense of Europe would require either a conventional buildup on the Central Front or a means of limiting the forces the Soviets can bring to bear in any attack across it. The buildup, however, is not possible given political realities, and the thinning out of Soviet forces isn’t possible given military ones. The maritime strategy’s emphasis on diversionary attacks recognizes the necessity of limiting Soviet strength at the front and, because it is necessary, assumes it is possible.

“Just as our World War II experience indicated that secondary fronts were required to defeat Germany, it is essential to any successful strategy that the Soviets be faced with a multi-theater challenge,” writes Rear Admiral William Pendley, the Navy’s director of strategy, plans, and policy. The Admiral’s use of “essential” is a telltale touch. He assumes that, on land, in Europe, NATO’s choice, as another Navy man puts it, is to “lose quickly or lose slowly.” But persuasive books and articles make the case that NATO’s fighting potential is thus derogated for reasons of budgetary politics, and that it would stand a better than fair chance of stopping whatever the Soviets threw against it. The Admiral’s analogy, moreover, would have us believe something quite improbable: that the three or four carriers that the Navy would use to attack the Soviet sub bastions and bases in the Far East can do the work of the 400 divisions that the Soviets fielded on their “secondary” front against the Germans in the Second World War.

Something intrinsic to offensive strategies accounts for such motivated bias. Defense is more empirical. You let

the enemy commit himself and then exploit the opening he has given you. Navy officers deride this kind of thinking as “reactive,” a word you often hear to characterize what was wrong with U.S. strategy in Vietnam. Yet Waterloo was won on the strategic defensive; so was Gettysburg. And so, Colonel Harry Summers argues in his influential book on the military lessons of Vietnam, might the Vietnam War have been won.

The main contribution made by the Allied navies to victory, in the European theaters of both world wars, was through defensive measures like the blockade and the convoy system. In the Second World War the Navy won the Battle of the Atlantic not by attacking the German submarine bases with its carriers—that would have exposed them to the stings of land-based German bombers—but by defending the convoys with frigates, destroyers, and corvettes. According to one scholarly work, “in the entire war only 25 ships were sunk by U-boats when both air and surface escorts were present (out of a total of 2,828 lost to submarines).” The Navy’s new, offensive model is derived instead from the Pacific theater of the Second World War. The island-hopping offensive conducted there by carrier-centered task forces, however, was tantamount to an intervention in the Third World, not to an attack on the mainland of a great power. Across the Pacific the Navy had air superiority. It will not enjoy this advantage off the Sea of Okhotsk or the Kola Peninsula.

It is hard to believe that thoughtful military planners would actually do this.

—Admiral Stansfield Turner

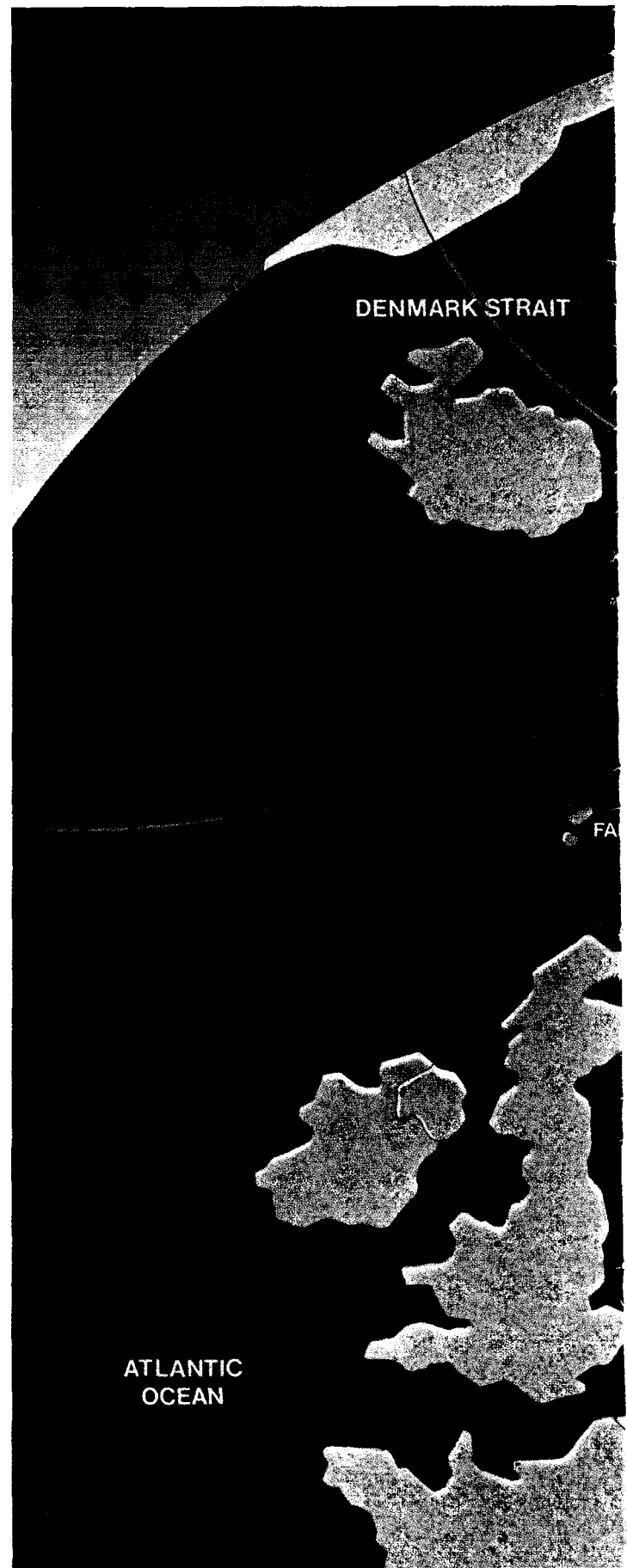
ADMIRAL TURNER IS REFERRING TO THE ATTACKS ON the Kola Peninsula contemplated as part of the first objective of the maritime strategy. The Kola Peninsula is 125 miles above the Arctic Circle, and from mid-November to mid-January the sun does not rise above the horizon; yet, thanks to a vagrant current of the Gulf Stream, a stretch of the Kola coast is free of ice year round. Three major Soviet ports lie along this stretch of coast. They are Polyarnyy, a base for the surface ships and submarines of the Red Banner Northern Fleet; Pechenga, a naval base and fishing port only eighteen miles from the NATO lines at the Norwegian border; and Murmansk, a center for the Russian fish-processing industry and the site of two large shipyards. There are other, smaller bases on the Kola, approximately forty military airfields, and the barracks of two army motorized divisions and a marine regiment. Half of the Soviet Navy’s submarines, and a quarter of its surface ships, naval aircraft (including its Backfire bombers), and naval personnel, are attached to the Northern Fleet. The fleet’s mission is the defense of the Russian homeland; since ballistic-missile submarines were added, in the early 1960s, this has come to mean defense of the seaborne leg of Russia’s nuclear deterrent, the SSBNs.

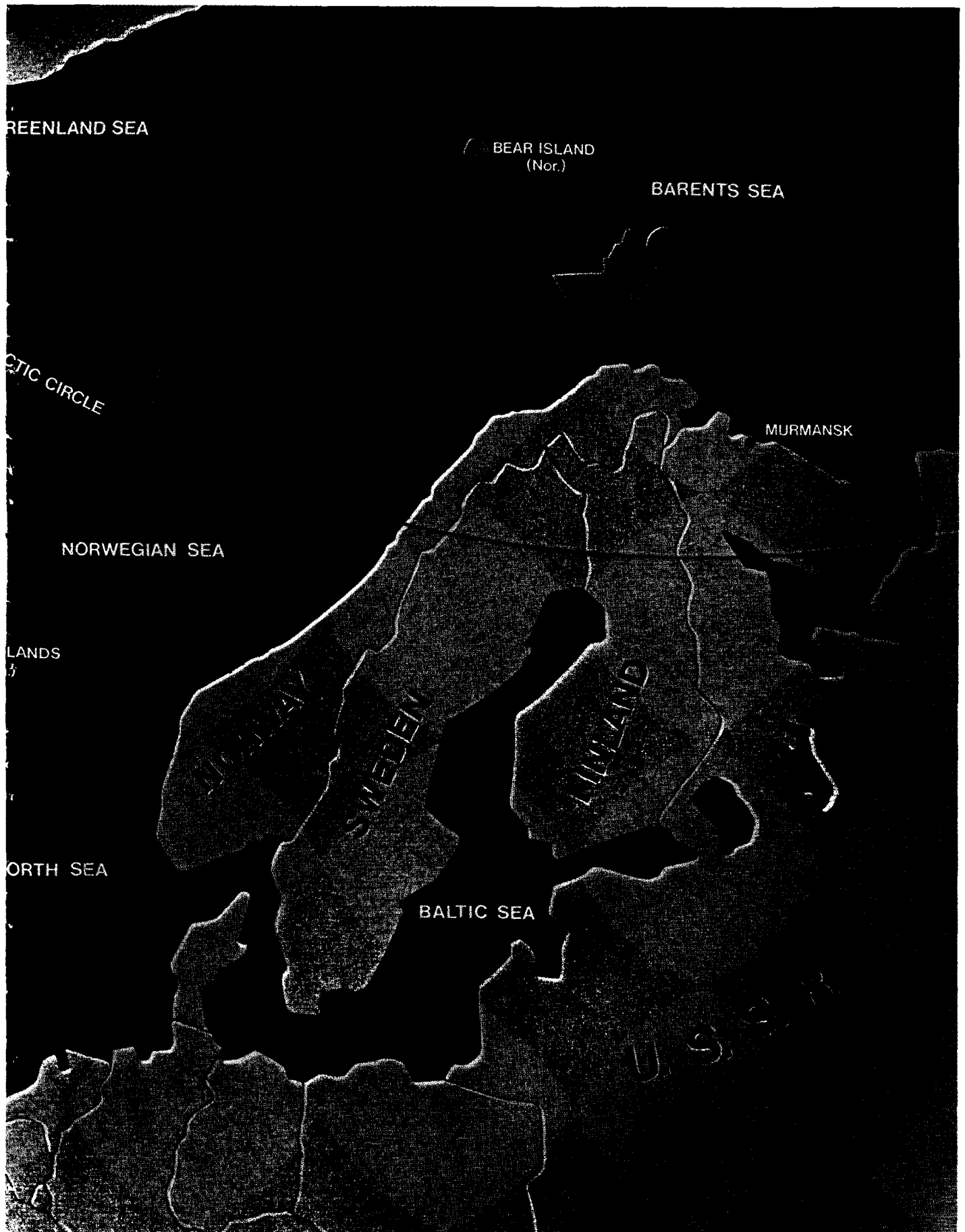
The essentially defensive mission of the Northern Fleet, and indeed of the Soviets' three other fleets, is "alien to American naval thought," in the words of one scholar. Our SSBNs operate independently and depend on their own stealth, not surface ships and attack submarines, to assure their survivability. But Soviet SSBNs do not have this luxury. In order to get to the open ocean Soviet submarines have to pass through narrow enemy-held choke points, like the Bear Island gap off the North Cape of Norway and the Aleutian gap northeast of Japan—passages that are, in the words of a recent writer on the subject, "almost as extensively wired for sound as a Hollywood studio." Thus the Soviets keep their subs in defended bastions, like the waters of the Barents Sea, off the Kola.

An attack on the Kola would begin with history's first all-out submarine battle, pitting U.S. attack subs against their Soviet counterparts. The U.S. subs would have to "roll back" the Soviet subs from the Norwegian Sea, and from the approaches to the Barents Sea, before the Navy would risk sending carriers to bomb the Kola bases. In a searching paper published in the invaluable *International Security*, John Mearsheimer, a strategic analyst at the University of Chicago, calculates that the Soviet Northern Fleet includes 41 ballistic-missile submarines (SSBNs) and 140 cruise-missile and attack subs (SSNs). Once the maritime-strategy quota is filled, the Navy will have 100 attack subs. When you deduct from this total the number on Pacific duty, the number that would be held back to defend NATO's lifelines, and the number normally in port for repairs, you have roughly 30 subs left. That means 30 of our submarines versus 181 of theirs, if you count their SSBNs, and 140 if you don't. This outnumbered force would confront "an impressive array of land-based aircraft and surface combatants . . . , specifically designed to participate in ASW [anti-submarine warfare] operations," as Mearsheimer puts it. Finally, the U.S. subs would face "a huge arsenal of mines"—a threat that the Navy's anti-mine capability, in the words of Admiral Wesley McDonald, the former commander of the Atlantic Fleet, is "woefully inadequate" to counter.

Defenders of the maritime strategy argue that Mearsheimer's figures are misleading, in two ways. First, he counts "non-operational" boats in the Soviet total, and second, he obscures the qualitative edge possessed by the U.S. boats. The odds, in short, would not be so bad as the naked numbers make them appear.

Against these claims, in turn, one must set the sovereign fact that this sub-versus-sub battle would take place in or very near Soviet waters. And this home-field advantage, coupled with the overwhelming Soviet superiority in numbers, means that one would have to make a leap of faith to imagine the rollback campaign succeeding. But suppose it did succeed. Suppose the U.S. aircraft carriers were steaming into position to launch their air strikes against the Kola. What dangers would they be likely to face? Admiral Turner and Captain George Thibault, writing in *Foreign Affairs*, have drawn a vivid picture of those dangers:





With modern reconnaissance techniques, such a major force would be detected long before it arrived within striking range of a Soviet base. The Soviets would have time to minimize their forces left in port or on airfields and to put the rest on full alert. By the time the carriers were within 1,600 miles of Soviet air bases, they would be within range of over 90 percent of the U.S.S.R.'s land-based bombers. Yet, the Soviet bases would still be over 1,000 miles beyond the range of carrier aircraft.

Traveling at 25 knots for those last 1,000 miles, the carrier force would be subject to Soviet air bombardment for nearly two days before it was close enough to strike Soviet bases. The force would also be subject to attack by submarines and surface ships with long-range missiles that would have been deployed along the route. . . .

At a point 400 to 500 miles from the Soviet bases, the carriers could finally launch an attack with whatever aircraft were left after two days of Soviet attacks. . . . Most Soviet ships and aircraft would have left their bases or airfields when they received warning of the approach of the carriers. Thus, if the carriers wanted to destroy them, the carriers would have to remain in that exposed position and continue attacking long enough to catch the ships and planes that come and go as they require repair, replenishment or refueling—a considerable period of time. Unless nuclear weapons were used, even the attacks on base and airfield facilities would have to be repeated as repairs were made. With the carrier task force in a forward position long enough to do the job correctly, the chance of losing part, if not all of it, would be high simply because the trends of technology give the attacker who employs the new stand-off weapons like Exocet [anti-ship guided missiles] a considerable advantage today.

The loss of three or four of the Navy's 12 to 13 carriers, in what would have to be a gamble to suppress the Soviet Navy in this manner, would be a major catastrophe. No President could possibly permit the Navy to attempt such a high risk effort. There simply would be inadequate fallback forces to handle other threats, especially to the North Atlantic sea lanes.

The Navy counters criticism of this kind by stressing how much punishment its carriers can take. "We learned the hard way what weapons effects are at the Battle of Okinawa," John Lehman told the producers of "Battle for the Norwegian Sea," a documentary for the PBS series *Frontline*. "We had five carriers hit by kamikazes which were more formidable weapons than Soviet cruise missiles. And we did not lose a single one of the large carriers to those attacks even though there were multiple hits on those carriers. . . . We're satisfied with the survivability of our carriers." Interviewed for the same program, Norman Friedman, a naval analyst formerly affiliated with the Hudson Institute, also cited a Pacific-theater battle in making the point that the Navy actually *wants* the Soviet long-range anti-ship Backfire bombers to attack. "In the Philippine Sea in 1944 the Japanese lost their entire naval air arm . . . trying to destroy an American task force. If we concentrate fighters on the carrier we have a fair chance of doing the same sort of thing to the Backfire force. . . . It's very

important to keep in mind it's not an infinite source of airplanes waiting to come out. There are all of about three hundred bombers in Soviet naval aviation. These bombers have elite crews. Once the crews have been killed, and the bombers shot down, they don't come back." The Backfires destroyed, each carrier can unleash its thirty-four attack planes against the bases and ports on the Kola. "They'd lose their whole strategic submarine fleet if they lose Kola," Lehman said.

The Navy claims that in its war games and in the at-sea exercises it conducts, the carriers always get through, but according to former Lieutenant Commander Dean Knuth, who umpired one of these fleet exercises, the Navy interprets these tests with motivated bias. "I was reporting that the carriers were in fact vulnerable against submarines," Knuth said in the *Frontline* documentary. "And the article that I was asked to write for the *Naval Proceedings* reported this vulnerability and the Navy declared my article to be secret. . . . somehow the results were modified by the time that they were reported on at the top levels in the Navy. And specifically when the then commander-in-chief of the Atlantic Fleet reported to the Senate Armed Services Committee . . . that aircraft carriers did the job so well it was a reason to fund additional nuclear aircraft carriers, and that funding happened and they got what they wanted."

LET'S STEP BACK TO PUT THE DISCUSSION INTO PERSPECTIVE. I have been laying out the salient arguments against the Navy's rationale for the first objective of the maritime strategy. The Navy's idea is that what it calls "forward operations" and Mearsheimer calls "offensive sea control" would be necessary to prevent Soviet subs based on the Kola from cutting NATO's supply lines. Attacking the Kola, therefore, would be an anti-measles vaccine. Administering that vaccine, as we have seen, would be costly. But is it, in any case, strategically necessary to run such high operational risks?

A strong case can be made that offensive sea control would not be necessary to ward off the measles, that a defensive strategy would achieve the same end, and that such a strategy, because it would call for a different force structure, would cost the taxpayer significantly less to support.

Take the first point—that an offensive strategy is not necessary. Mearsheimer writes that in the 1970s "the American intelligence community became convinced that the Soviets would keep most of their naval forces in the Barents Sea to protect their SSBNs." Using measured understatement, he adds, "The Soviet decision to concentrate on protecting their SSBNs, which means that a large force of SSNs would not be surged into the Atlantic, does not correlate with the Reagan Administration's much-advertised switch from defensive to offensive sea control." Measles-spreading would become a priority to the Soviets only in the event of a war of attrition in Europe. But the

Soviets have shaped their forces to fight a blitzkrieg war in Europe. Their operational imperative, should war come, would be to drive the NATO armies off the Continent before the industrial might of the United States could be poured through a European beachhead against them. Attacking the SLOCs would be vital only if they failed in that objective.

Moreover, in today's maritime world the mission of cutting the SLOCs connecting America and Europe is an increasingly unlikely one for submarines to carry out with a high expectation of success. As we have seen, in its briefings to Congress the Navy invokes the dread memory of 1942, when a handful of U-boats sank 450 U.S. merchantmen in seven months. Today, the Navy says, the United States has roughly 450 ships in its entire merchant fleet. The implication is clear that sinking them would be short work for the some 280 Soviet subs available for the job—that is, unless we sink those subs first.

Research conducted by Karl Lautenschläger, a defense analyst at the Los Alamos National Laboratory, puts this whole hit-them-before-they-hit-us logic under terminal statistical pressure. Consider: Although the United States indeed has only about 450 merchantmen, the Western Alliance has no fewer than 38,000 ships of all kinds available to it (including 14,000 ships over 1,000 tons—those that are the most significant militarily), or four times the tonnage that was available to the Allies at the beginning of the Second World War. Panama and Liberia have an additional 7,500 ships between them, most of which are NATO ships flying under flags of convenience. Passing over the possibility that neutral shipping would come to the aid of the Allies (as happened in the First World War, with fatal consequences for German naval strategy), the sheer number of NATO targets would confront Soviet subs with a daunting mathematical challenge. Each sub typically carries twenty-four torpedoes, and in the Second World War it usually took more than one to hit a ship. If the Soviets had a fleet of 450 to 500 attack subs, they might have a chance to buck these odds—might, in other words, be able to sink enough ships to cut the arteries between the United States and Europe. But the Soviets, according to Lautenschläger, are under the same imperative to gold-plate their weapons that we have seen in procurement for our services; in the familiar pattern, they are building fewer, bigger, and more sophisticated boats. Projecting their current building program into the future, Lautenschläger estimates that they will have only 240 subs in service by the 1990s, of which 60 will be available to strike at NATO's SLOCs. Sixty against 14,000—to use only the number of large ships—does not seem like tough odds, and I have said nothing about the technological improvements in anti-submarine warfare since 1945. These trends—toward more merchantmen, fewer Soviet submarines, and better American ASW performance—have significantly eroded the anti-SLOC, or commerce-warfare, mission of submarines. Commerce warfare, Lautenschläger concludes, is “regressing to commerce harassment.”

If attacking the SLOCs is both a secondary and, given the trends mentioned above, a quixotic objective for the Soviets, defending their SSBNs is a first-order priority. With the bulk of their strategic weapons in land-based missiles, and their bomber force small and antiquated, the Soviets have a gaping window of vulnerability opening over their land-based nuclear deterrent. Having a far less vulnerable, if not invulnerable, sea-based deterrent is therefore the Soviets' only safeguard against the threat of a U.S. first strike on their land-based systems. To the objection that we would never launch a first strike aimed at disarming the Soviet deterrent, one can say this: the Soviets don't care what we say we will do; like us, they infer intentions from capabilities. And our capabilities—with a repertoire of weapons built around the highly accurate D-5 Trident II submarine-launched ballistic missile (to be deployed in 1989), the silo-killing MX intercontinental land-based missile, and the European-based fast-flying Pershing II missile, which can reach Moscow in the space of a regret—will soon be shaped for a first strike unless a major arms-control treaty with the Soviets supervenes. The Navy expects to have twenty Trident submarines at sea by the turn of the century. If the Soviets do not add to their current total of 1,398 fixed-silo launchers until then, Lautenschläger calculates, the Tridents alone could wipe out their land-based deterrent. Meanwhile, the Soviets' sea-based deterrent will be put at risk by the anti-SSBN campaign of the maritime strategy. By itself, the anti-SSBN campaign is dangerous enough; seen in the light of our ominous new nuclear-force structure, it threatens the Soviets with the prospect of being naked to their enemies—a risky state of mind for them, and us, in a crisis. If Weinberger prevails upon Reagan to order the deployment of a missile defense by the early 1990s, this first-strike profile would be complete, since such a defense would theoretically allow us to shoot down the few Soviet missiles that survived the deadly hail of our Tridents, MXs, and Pershings as well as the undersea onslaught of the anti-SSBN campaign called for by the maritime strategy.

A return to defensive sea control on our part would seem mandated by the low priority that the Soviets give to cutting the SLOCs. A defensive sea-control strategy would not only provide more crisis stability; if any Soviet subs were sent to cut the SLOCs, it would allow NATO to fight them in friendlier waters, off the western coast of Norway, instead of in the perilous waters of the upper Norwegian and Barents Seas, off the North Cape of Norway—the harm's way of the maritime strategy. The Soviet Backfire bombers that would come out after the U.S. surface fleet off the western coast of Norway, Mearsheimer points out, would have to go too far to bring along their fighter escorts. The Navy, closer to its own lines, would be able to use land-based ASW planes against the Soviet subs. Finally, a U.S. fleet shaped for such a strategy would be strong where our fleet is weak—in corvettes and frigates—and would not need the fifteen carriers called for by the maritime strategy (each of which, with its array of defensive ships, costs \$18

billion to build and \$700 million annually to operate). Mearsheimer estimates that the Navy could get by on ten carriers. Defensive sea control, in short, would be more efficient, both militarily and economically.

To make a stand off the west coast of Norway, outside fighter range of the Soviet bases on the Kola, the Navy counters, would write off northern Norway. Captain Brooks asks, "If you were in the government of one of our allies, how would you react to an espoused strategy that said that in time of war we'd write off the bulk of one of our allies' territories because it didn't fit our strategic theories?" Vice Admiral Henry Mustin, lately commander of NATO's Striking Fleet Atlantic, which would fight the battle of the Norwegian Sea, argues that losing northern Norway would be more than politically embarrassing; it would be fatal to NATO's whole defense effort: "Naval power can make the difference between winning and losing the land battle in northern Norway. And that means the difference between winning and losing the Norwegian Sea and hence the Battle of the Atlantic and the land war in Europe."

Is this so? Would a defensive sea-control strategy—which was the NATO strategy during the Carter Administration—write off northern Norway and with it the Western world? Not at all, Mearsheimer says. In a recent interview with me he argued that northern Norway could be far more easily defended by ground-based aircraft than by the Navy's carriers. There are several good military airfields in northern Norway, and the naval base in Troms county is defended by automatically controlled minefields and by guns built into the rocks. Moreover, the Soviets would face fearsome terrain if they tried to invade by land, and their feeble amphibious capability lessens the chances that they would come by sea. Norway has a good army, trained and equipped to fight a frozen war at the top of the world, and it is backed by the U.S. Marines, who by 1989 will have equipment sufficient to support a 17,000-man Marine amphibious brigade pre-positioned in Norway, waiting against the day.

Norway conducts a delicate "nordpolitik" toward the Soviet Union. It is a member of NATO, but it does not allow NATO troops to be based on its soil, out of fear of antagonizing the Russians, who are just over the border from the Norwegian county of Finnmark. Norway will, however, have that pre-positioned equipment for the Marine brigade, and it has agreed that the Marines would be flown in at the threat of war. If the East-West relationship were to deteriorate sharply, the Norwegians might well invite more NATO forces in, and nordpolitik be damned. The question for American taxpayers is not whether northern Norway should be defended but, rather, whether its defense requires \$18 billion carrier battle groups when the same job can be done at approximately one fourth the cost by ground-based jet fighters. The Navy says that ground-based aircraft, being stationary, are more vulnerable to attack than aircraft based on carriers. But airfields can be defended by anti-aircraft missiles and fighter planes. And say this for airfields—submarines can't sink them.

Once, I remember, we came upon a man-of-war anchored off the coast. . . . It appears the French had one of their wars going on thereabouts. . . . In the empty immensity of earth, sky, and water, there she was, incomprehensible, firing into a continent.

—Joseph Conrad, "Heart of Darkness"

EVERYBODY WHO HAS READ "HEART OF DARKNESS" remembers that warship. It is one of the suburban absurdities that Marlow sees on his way down the west coast of Africa to his destination, the great river that leads to Kurtz. The warship stands for the utter fecklessness of the European effort to subdue vast Africa. For our purposes, it serves admirably to express the aura of absurdity that surrounds the Navy's second objective for the maritime strategy and the 600-ship Navy—the seaborne campaign of horizontal escalation against the vulnerable flanks of the Russian land mass, and against such supposed wards of the Soviet state as Cuba, Angola, South Yemen, and Nicaragua.

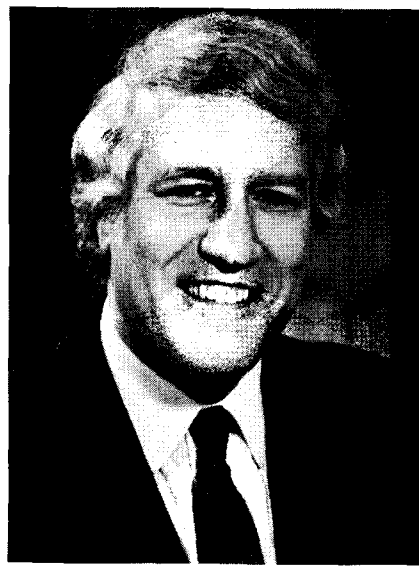
The Navy defends the threat of horizontal escalation as a necessity to pin down Soviet forces who might otherwise be sent to the Central Front. In this way, it claims, horizontal escalation contributes to deterrence in Europe and would help the U.S. force a favorable end should deterrence fail and conventional war with the USSR begin.

Robert W. Komer, who was an undersecretary of defense in the Carter Administration, has written a book attacking the maritime strategy; he comes down especially hard on the idea of horizontal escalation. "Even if carrier strikes around the Soviet periphery could be carried out with great success with acceptable losses," he writes, "it would be like sticking pins in the hide of an elephant." Elephants don't simply ignore pinpricks: they crush the wielder of the pin. And that seems the likely fate of the amphibious operations suggested as possible diversions by some maritime strategists.

General P. X. Kelley, the Commandant of the Marine Corps, has written of possible Marine landings on Sakhalin Island, in the Soviet Far East, or along the Baltic or the Black Sea coast of European Russia. "Used in this way," he contends, "our naval forces can make the strategic difference." Mearsheimer disagrees: he calls the Baltic and Black Sea scenarios "completely unrealistic." Amphibious attacks, he argues, could be launched in those places only if the United States had local air and naval supremacy, which is unlikely in Soviet waters. Such attacks, moreover, would have to forfeit the element of surprise, since to be in a position to attack, U.S. ships would have to steam through narrow, easily monitored choke points like the Bosphorus, at the mouth of the Black Sea, and the Øre Sund and Skagerrak, at the approaches to the Baltic. Finally, an amphibious operation that might really "make the strategic difference" would require, Mearsheimer calculates, a force more like the five heavy divisions landed at Normandy than like the one and a half light divisions that the Marines have on hand for the job.

In order to mount the Normandy-type operation neces-

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sary to pose a plausible threat to the Soviets, and simultaneously to guard the European SLOCs *and* conduct anti-submarine warfare in the Norwegian Sea *and* secure Japan's sea lifelines *and* pluck belligerent Angola and Cuba and Vietnam off the Soviet vine—to do all this would take a force larger than the 600-ship, 15-carrier Navy. This is a point made cogently by Michael McGwire, a naval analyst at the Brookings Institute. The Navy “cannot be excused for creating the impression that a 15-carrier force . . . would ensure success in global war,” he writes. “Not only does the claim flout common sense, but it is contradicted by the JCS ‘prudent risk’ assessment, that at least 22 carriers would be needed. . . . It is bad strategy, marketing or maritime, to exaggerate the capabilities at one’s disposal.”

If the attack on the Kola violates one maxim of war—never throw weakness against strength—the waterborne campaign around the periphery of the Soviet Union violates another. This point is tellingly made in an article called “The Reagan Defense Program”:

The Soviets are able to exploit their interior lines of communication in order to shift rapidly the geographical pivots of their force concentrations for power projection. Thus, they are in a position to move airborne forces and air forces swiftly along their periphery, and they can shift Backfire bombers to attack our fleets more rapidly than the United States can shift its aircraft carriers between widely separated sea regions near the Soviet Union.

The author of those words is none other than Fred Iklé, the undersecretary of defense for policy.

Clearly, horizontal escalation is not a credible strategy. And that is its cardinal flaw. Would the Soviets be deterred from invading Europe by the prospect of a few warships’ shelling their Asiatic ports or by the threat of a light division’s—for NATO could spare no more from the do-or-die battle on the Central Front—storming the beaches of one of their resorts? You don’t have to be a Clausewitz to answer that one. A gunboat firing at a continent is a risible threat.

We now live in the worst of all possible worlds. We plan potentially escalatory conventional operations, but we do not seem to understand their implications.

—the MIT strategist Barry Posen

THERE ARE ROUGHLY 3,500 TACTICAL NUCLEAR WEAPONS deployed on Navy ships, but, according to one study, “The Navy has developed very little in the way of doctrine, tactics, strategy, or policy for the use of [tactical nuclear weapons] capabilities.” The Navy’s neglect of the subject of tactical nuclear war at sea is puzzling in light of the widely accepted idea that “there are good reasons for believing that the first use of nuclear weapons could take place at sea,” in the words of Desmond Ball, the head of the Strategic and Defense Studies Centre at the Australian National University. The maritime strategy

raises special problems in view of this liability of naval warfare in the nuclear age. That strategy envisages pitting nuclear and conventionally armed and—to add a dangerous complication—dual-capable boats, the switch-hitters of naval warfare, against one another in a great gumbo of a battle. Maritime strategists are weirdly confident that this battle will not cross the firebreak between conventional and nuclear war. Yet that could happen at sea in a variety of disturbingly plausible contexts. For example:

- The Navy requires orders from the National Command Authority (jargon for the President and the Secretary of Defense) to use strategic or tactical nuclear weapons. But no technical restraints bar the use of Navy nuclear missiles, as they do Air Force and Army nuclear weapons. Everything depends on the discipline of the sub’s crew. Faced with a choice between death and the use of tactical nuclear weapons, a ship or sub commander may well find Spinoza’s venerable imperative—Being wants to stay in being—stronger and deeper in him than the regulations of his service.

- Ships make a comparatively attractive target for nuclear weapons. “The destruction of naval vessels would involve few if any civilian casualties,” Ball writes, “and attacks against them could be clearly distinguished as . . . limited operation[s] . . . proffering the possibility of containing a nuclear engagement to the sea.”

- “You have to have an appointment for the submarine to come up and listen.” The writer is referring to the communications problems endemic to underwater operations. A submarine cannot communicate with the National Command Authority from the depths. It must rise up near the surface, where it becomes vulnerable to enemy detection. Consequently, communication between a submarine and the NCA can be as infrequent as once every twelve hours. Peace can break out in twelve hours. War can be avoided. Take an example given by Desmond Ball.

The HMS *Conqueror* received orders at 10:00 A.M. to attack the Argentine cruiser *Belgrano* at 4:00 P.M. on May 2, 1982. It had made appointments to come up for messages every two hours, so it came up again at 12:00 and 2:00, and received the same orders. Somewhere around 4:00 it attacked the *Belgrano*. Meanwhile, the United States and Peru were working feverishly to avert war. Their peace efforts were spurned by the British War Cabinet, but even if they had not been, Desmond Ball writes, “there was a real possibility that any attempt to rescind the *Conqueror*’s orders would not have been received by the submarine.” A 3:30 change of heart would have been too late.

In claiming that it can fine-tune its anti-SSBN campaign in the maelstrom of war—sinking just enough SSBNs to coerce the Soviets, but not enough to panic them—the Navy not only assumes away the problems of command and control at sea; it also fogs recall of its own experience. In the one nuclear emergency of the postwar era, the Cuban missile crisis, there was a bad failure of communication between the Navy and the NCA. In a careful recent review of the crisis Scott Sagan, of Harvard’s department

of government, concludes, "The available evidence suggests that, in the pressure of the crisis, there was inadequate time to review the rules of engagement for U.S. ASW forces and that the key decision-makers neither anticipated the vigor with which the Navy would pursue this mission nor fully understood what the operations would entail." Specifically, the decision-makers did not understand that when the Navy, as part of its quarantine of Cuba, said that it would drop "harmless explosive sound signals" on submerged Soviet submarines to force them to the surface, it meant practice depth charges. In a not-for-attribution interview a former senior naval officer told Sagan that a "zealous" commander dropped depth charges on a Soviet sub, and Sagan reports that either this sub or another one given the same treatment was so damaged by the explosions that it was unable to submerge again and had to return to the Soviet Union. There is still debate among scholars over whether the subs forced up during the crisis carried nuclear torpedoes. Even if they all were conventionally armed, the incident is scary enough. Obviously, the command and control of naval forces thousands of miles from supervision is a fraught thing. To assume otherwise is to view the necessary as possible.

The Navy assumes, further, that its captains will maintain nuclear discipline unto death. It assumes that the Soviets will follow suit—that they won't initiate tactical nuclear war at sea in response to anything we might do against them. "Everything we know about their doctrine," Captain Brooks says, "tells us they won't. They won't for a very good reason: they are concerned with the use of nuclear weapons in the land battle which dominates their thinking." In other words, the Russians would be fools to jeopardize their conventional ground offensive by nuking our ships, since we would then blow their army into memory.

Captain Brooks's view illustrates one of the chief differences between the assumptions used by the maritime strategists and those used by their civilian critics. The maritime strategists make no allowance for accident (nuclear war starting from an isolated clash between two nuclear-armed ships) or for inadvertence (nuclear war starting as an unintended consequence of the way we have chosen to fight the conventional war). Instead, they posit what the Soviets would do in this or that instance by citing Soviet doctrine. They also deploy a logic of deterrence. The more something we do frightens the Soviets, the better; sufficiently frightened, the Soviets won't dare to invade Europe. The civilian critics of the maritime strategy look at the matter through the lens of crisis-control theory. Does the deterrent effect of the anti-SSBN strategy, which they don't *wholly* deny, outweigh the risk that because of it a conventional war between the superpowers might escalate into a nuclear one? That is the question they ask, and their answer is no.

These different points of view make the two sides in the maritime-strategy debate seem to be talking past each other. It's interesting, therefore, to find one backer of the

maritime strategy and strong believer in the deterrence outlook who also accepts the crisis-control logic. That backer and believer is Colin Gray, a civilian strategist known for his tough-minded views. Writing in defense of the maritime strategy in the Naval *Proceedings*, he vents the very anxiety the Navy says is needless. "One cannot evade the dilemma that the better NATO's nonnuclear forces fare on land and at sea, the stronger the incentive will be for the Soviets to engage in nuclear escalation." This admission highlights how the Navy's confidence that the Soviets will not escalate misconstrues the nature of the Soviets' security dilemma.

Nowhere is this clearer than in the Navy's rationale for the third objective of the maritime strategy—that an early and aggressive use of U.S. attack submarines against Soviet SSBNs would alter the nuclear balance of forces in favor of the U.S. and thus pressure the Soviets to end the war on terms advantageous to the United States.

What's wrong with this aspect of the strategy? This: there is doubt that any President would let the Navy carry it out. As Admiral Watkins himself told the Senate Armed Services Committee in 1984, "All of our war games, all of our exercises that we have run . . . indicate that, in fact, we will *not* make the political decision to move forces early." But the plan depends on moving forces early: they would be racing the Soviet SSBNs to the polar ice cap, where the latter would try to hide after they fled their Barents Sea bastions. A strategy that the nation's political authorities may not allow to be pursued does not have a high deterrent value.

The reason this "counterforce coercion" strategy, to use Mearsheimer's terminology, might be vetoed is as simple as death—it could cause inadvertent nuclear war.

The Navy assumes that the Soviets would accept the sinking of their SSBNs as part of the hazards of conventional war against a major sea power. But are the Soviets really likely to respond this way? For a superpower, as the MIT strategist Barry Posen has argued, nuclear weapons are "essential to the preservation of [its] sovereignty." He continues, "Although it may seem paradoxical, the use of some nuclear weapons to protect the remainder of one's strategic deterrent is probably among the most plausible scenarios for nuclear escalation." The Soviets might accept the incidental destruction of some of their SSBNs, figuring that the U.S. attack subs could not distinguish between Soviet SSNs and SSBNs. But a concerted U.S. attack on the third leg of an increasingly vulnerable nuclear triad could well cause them to use what Mearsheimer calls "nuclear coercion" against our naval or strategic forces. The five nuclear-powered carriers now in our fleet have a total complement of 25,000 officers and men. Their destruction by nuclear mines or missiles would neither kill civilians nor be recorded for the evening news. Is any gain worth this possible risk—or the risk of our inevitable counter-escalation? This is the plan that the Navy would urge on a future President—on this President—upon the outbreak of war with the Soviet Union.

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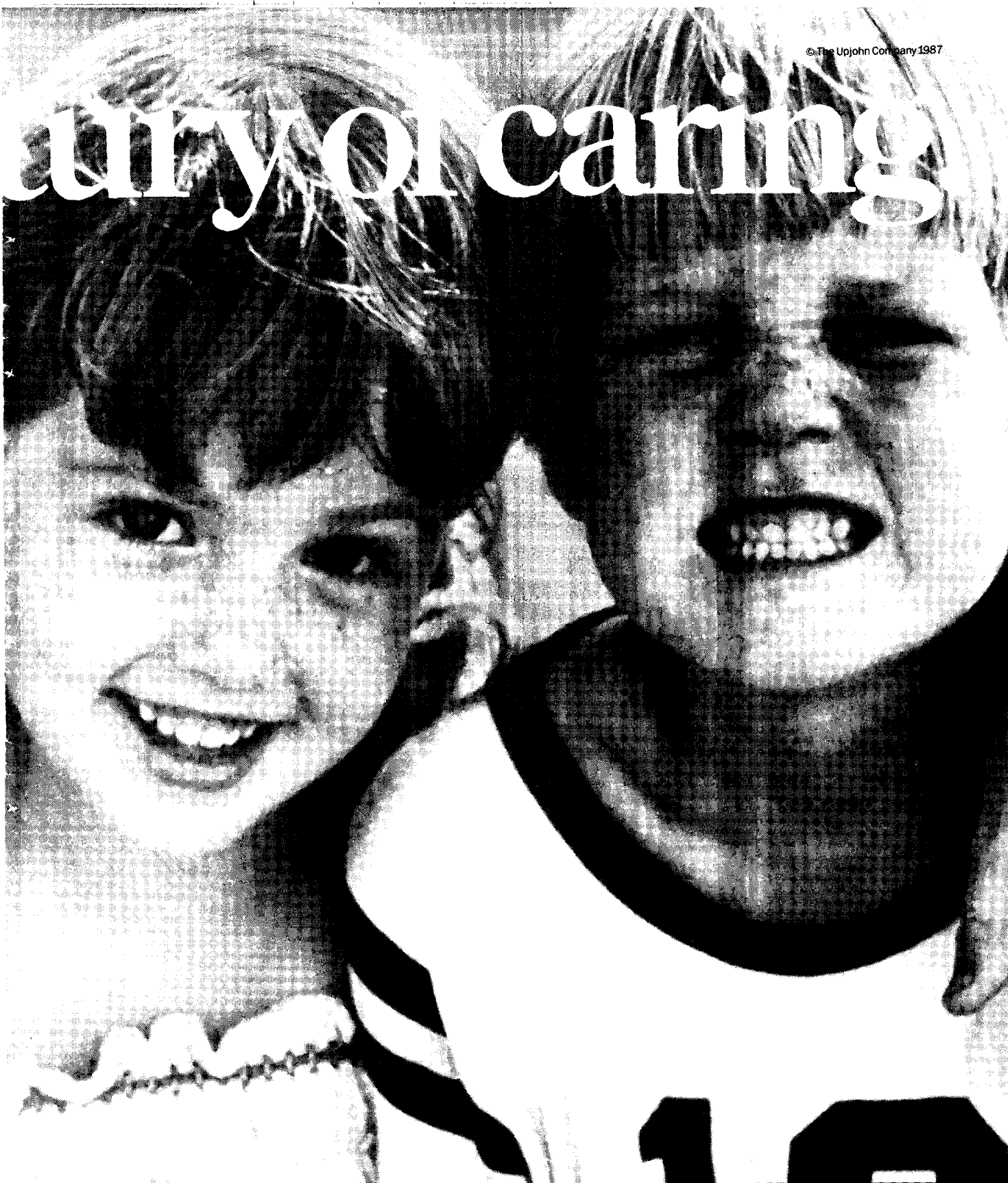


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Leave out a war; this is the plan that the Navy would urge in a crisis. General Kelley, in the white paper on the maritime strategy, writes, "At the first sign of deepening tension or possible preparation for a general Soviet attack, U.S. and Allied forces will surge from their home ports and deploy as far forward as possible." Admiral Watkins writes that the Navy "would seek to win the crisis," and in testimony before Congress he has decried the "pattern of political inaction" revealed in war games—the President's reluctance to approve the anti-SSBN campaign—and said that it could be "devastating" in the next conflict. "Somehow we have to build up in this crisis period, the transition to war, in a new way," he said. "We have to think more aggressively in terms of the pre-positioning of forces." Would the President be as alive to the risks of this time-critical strategy—attacking Soviet SSBNs before they can get under the polar ice—as the Navy war games assume? Or would he instead believe the Navy's claims that using conventional weapons to tip the nuclear balance toward us would be a useful form of political-military pressure? Questions like this give counterforce coercion the look of a fuse.

What is really happening is that the United States is drifting by default toward a primarily maritime strategy.

—the former undersecretary of defense Robert Komer

THUS FAR WE HAVE BEEN CONCENTRATING ON THE sheerly naval critique of the maritime strategy. But that is not the way a President would look at the matter. He would be obliged to consider the maritime strategy in wider terms. He would have to ask himself, How does this fit in with the claims of the other services and with U.S. defense policy generally? And what is the nature of the Soviet threat against which these claims should be gauged? Such questions form the cost-benefit calculus of strategy. And in these wider terms the maritime strategy looks like a very bad bet indeed.

Ask a Navy officer if he can imagine any set of political or national-security objectives for which the Soviet Union would invade Europe, and he is apt to reply that he cannot. Only by proceeding according to a calculation that reasons from Soviet military capabilities to the motives of the Soviet state—a "strategic fiction," to borrow a phrase from the late Raymond Aron—can we imagine the Soviets doing such a thing. U.S. defense policy is premised on that strategic fiction. Every year, we proceed on the assumption that our armed presence in Europe, backed by our nuclear missiles, is all that keeps the Soviets from invading. When the Soviets don't invade we take that as proof that our assumption was valid. That assumption costs the U.S. taxpayers about \$130 billion annually to support. It may not be valid, but at those prices it certainly is real.

Someday some President, driven by budgetary imperatives, will import political and national-security calculations back into this strategic fiction. When he does so, he may conclude that we are paying far too much to ward off a

threat that is just this side of unimaginable. However, until that day comes, we must, President-like, measure all U.S. defense spending against this fiction-tainted question: Does this expenditure add to or, by draining off funds needed elsewhere, detract from the goal of deterring the Soviets in Europe?

By that criterion, the maritime strategy has hurt, not helped, national security. From 1971 to 1984, Edward Luttwak calculates in *The Pentagon and the Art of War*, the number of Soviet divisions increased from 160 to 194; overall strength went up by 40 percent. When the Reagan Administration came into office, the United States had sixteen divisions. It has since added two light divisions, but, as Luttwak notes, the number of servicemen on active duty under Reagan and Carter is roughly the same. Where, then, has the money to counter those 194 divisions gone?

To the Navy and the strategic forces. As Caspar Weinberger told Congress in 1982, "The most significant force expansion proposed by the Administration centers on the Navy, particularly those components of it that have offensive missions." Luttwak writes, "Of the \$130.2 billion (1985 dollars) added to the defense budget by the Reagan buildup over and above the 1981 (baseline) level during the three fiscal years 1982–1984, the Army's share of the increase was \$28.5 billion, while the Navy did very much better with \$43.8 billion." The Navy's shipbuilding budget grew from \$7.5 billion in 1979 to \$12.1 billion in 1985, and the size of the fleet has grown from 479 ships when Reagan took office to 558 today, on its way to John Lehman's goal of a 600-ship Navy.

Turning to the future, a Congressional Budget Office study has found that to maintain the 600-ship, 15-carrier fleet, the Navy will need a three-percent annual increase in its budget well into the 1990s. Manning those ships, moreover, will require an additional 30,000 men and women, and they don't work for nothing. This increased naval spending—much of it already earmarked—will come at a time when the overall defense budget is expected to grow by only one percent annually. Under those circumstances—a three-percent Navy commitment and a one-percent overall budget ceiling—something will have to give. The fear among some analysts is that Peter will be robbed to pay Paul, Peter being the ground and tactical air forces in Europe upon whom conventional deterrence rests.

The first skirmish in this battle of the budget should be fought this year. The Navy has just asked for two new carriers to replace two aging ones. The request struck many observers as odd, since in the budget that the Navy submitted last year it had said that no new carriers would be needed until the 1990s. In testimony before the Senate Armed Services Committee, Secretary of Defense Weinberger was asked about this contradiction. What had changed in the world, Senator Carl Levin, of Michigan, wanted to know, in the few months since the last budget? Weinberger's reply qualifies him for the bureaucrats' Hall of Fame. Last year's forecast was a "rolling" estimate, he said, meant to cover a five-year period. Each year begins a

new five-year period, so a new estimate is required, the old one having been rolled over. Levin registered his disbelief and, after trying in vain to make the Secretary give a real answer, thanked him for his "rolling answer." Taxpayers must hope that the Secretary will be made to justify this request with something other than persiflage and that Congress will review the mission those two carriers would perform, keeping two questions in mind: Does the maritime strategy make sense as a way to use existing U.S. forces, or, for that matter, *any* conceivable U.S. forces? And could submarines carry out that strategy better than carriers could? Let's consider the second question first.

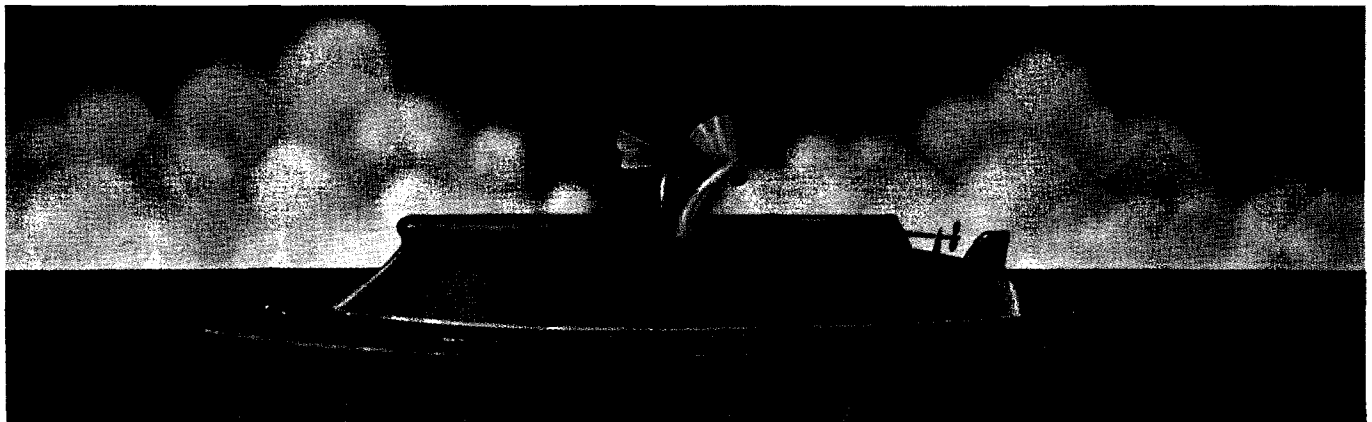
John Mearsheimer has talked to many Navy officers who think that the maritime strategy should be executed strictly by submarines. But, he says, they will not talk publicly, for fear that the Navy brass will "ruin their careers." The congressmen should be free of that fear. The Navy is asking Congress for funding to build the Seawolf, a new class of attack submarine more expensive than the current Los Angeles-class subs, equipped with more torpedoes and able to do more tricky things under the polar ice. Should the attack on the Kola be executed not with carriers but with Seawolves equipped with short-range conventional missiles that can hit land targets? the congressmen might ask. And this will bring them to the broader question, Should it be executed at all? Or would the national interest be served by a return to a defensive strategy, which would be less expensive and less risky to carry out?

THE SOVIETS' ATTAINMENT OF NUCLEAR PARITY during the 1970s required the United States and its allies to move closer to land-power parity to offset the nuclear stalemate and thus secure deterrence. Instead, the United States committed to building a 600-ship Navy. "At the level of grand strategy," Luttwak writes, "this is the equivalent of outmaneuvering oneself: the United States is giving its highest budget priority to naval forces, which in a major conflict with the Soviet Union would be the least useful, except to oppose the Soviet Navy, *to which the Soviet Union gives the lowest budget priority.*"

The naval buildup called for by the maritime strategy makes sense not as a force to fight a conventional war with

the Soviet Union but as a force for intervention in the Third World. In the unquiet wake of Vietnam, Congress would have been unlikely to authorize an intervention fleet. Congress needed the Soviet rationale. What it got was the intervention fleet.

That fleet is an instrument not of our traditional NATO-centered foreign policy but of the post-NATO unilateralist foreign policy called for by an influential critic of NATO, Irving Kristol, who is reputed to have sway with Jack Kemp, who may be the next President. Preparing for a post-NATO world may turn out to be prescient. With opposition parties in both Britain and Germany now calling for the removal of American nuclear weapons, NATO as we know it is looking like a fossil. Change will come in Europe, opposition parties having a way of eventually getting into office, if not in this decade then in the next. And when it comes, the era of coalition defense may end. Spurning our nuclear weapons, the Europeans may find that Congress will call our boys home in reprisal, leaving the Europeans to see to their own defense. Ironically, Soviet acceptance of Reagan's proposal for the elimination of all Soviet and American intermediate range missiles from Europe may work to hasten the coming of a post-NATO U.S. foreign policy. The proposed "zero option" treaty, writes the columnist Charles Krauthammer, "is God's gift to American unilateralists" to whom the link to NATO is more a fetter than a bond of strength. Kristol and other writers have long complained that the United States should not have to suffer European balkings over the use of U.S. force in the Third World. With a post-NATO unilateralist foreign policy, the United States would not be inhibited by such balkings. Backed by a heavy-carrier Navy, we would be free to project our power as and where we saw fit. Such a Navy would give teeth to what has been called the Reagan doctrine—the U.S. effort to aid guerrilla fighters against revolutionary regimes in the Third World. Off Nicaragua the fleet has already been used to scare the Sandinistas. And should Jonas Savimbi, who leads the U.S.-backed guerrillas in Angola, get in a tight spot, the fleet could help him out. That's the sort of mission for which the 600-ship, 15-carrier battle group Navy is suited. But deterring the Soviets in peacetime and defeating them in war? This fleet is not the instrument for that job. □



A Short Story



POLICE DREAMS

BY RICHARD BAUSCH

ABOUT A MONTH BEFORE JEAN LEFT HIM, CASEY dreamed he was sitting in the old Maverick with her and the two boys, Rodney and Michael. The boys were in the back, and they were being loud, and yet Casey felt alone with his wife; it was a friendly feeling, having her there next to him in the old car, the car they had dated in. It seemed quite normal that they should all be sitting in this car, which they had sold two years before Michael, their seven-year-old, was born. They were on a dream street, all angles and doorways; it was quite dark, quite late. The street shimmered with rain. A light was blinking nearby, at an intersection, making a haze through which someone or something moved. Things shifted, and all the warm feeling was gone; Casey tried to press the gas pedal and couldn't, and it seemed quite logical that he couldn't. Men were opening the doors of the car. They came in on both sides. It was clear that they were going to start killing; they were just going to go ahead and kill everyone.

He woke from this dream shaking, and lay there in the dark imagining noises in the house, intruders. Finally he made himself get up and go check things out, look in all the closets downstairs, make sure all the doors and windows were secure. For a cold minute he crouched by the living room window and peered out at the moon on the lawn. The whole thing was absurd: he had had an awful dream, and it was making him see and hear things. He went into the kitchen, poured himself a glass of milk, drank it down, and then took a couple of gulps of water. In the boys' room he made sure their blankets were over them; he kissed each of them on the cheek and placed his hand for a moment (big and warm, he liked to think) across each boy's shoulder blades. Then he went back into the bedroom and lay down and looked at the clock radio beyond the curving shadow of Jean's shoulder. It was 5:45 A.M., and here he was, the father of two boys, a daddy, and he wished his own father were in the house. He closed his eyes but knew he wouldn't sleep. What he wanted to do was reach over and kiss Jean awake, but she had gone to bed with a bad anxiety attack, and she always got up depressed afterward. She had something to work out; she needed his understanding. So he lay there and watched the light come, and after a while Jean stirred, reached over, and turned the clock radio off before the music came on. She sat up, looked at the room as if to decide who it belonged to, and got out of bed. "Casey," she said.

"I'm up," he told her.

"Don't just say 'I'm up.'"

"I *am* up," Casey said. "I've been up since five forty-five."

"Well, good. Get *up*, up."

He had to wake the boys and get them dressed and ready for school, while Jean put on her makeup and got breakfast. Everybody had to be out the door by eight o'clock. Casey was still feeling the chill of what he had dreamed, and he put his hands up to his mouth and warmed them with his breath. His stomach ached a little; he thought he might be coming down with the flu.

"Guess what I just dreamed," he said. "A truly awful thing. I mean a thing so scary—"

"I don't want to hear it, Casey."

"We were all in the old Maverick," he said.

"Please. I said no—now I mean *no*, Goddamn it."

"Somebody was going to destroy us. Our family."

"I'm not listening, Casey."

"All right," he said. Then he tried a smile. "How about a kiss?"

She bent down and touched his forehead with her lips.

"That's a reception-line kiss," he said. "That's the kiss you save for when they're about to close the coffin lid on me."

"God," she said, "you are positively the most morbid human being in this world."

"I was just teasing," he said.

"What about your dream that somebody was destroying us all. Were you teasing about that, too?" She was bringing out of the closet what she would wear that day. Each morning she would lay it all out on the bed before she put anything on, and then she would stand gazing at it for a moment, as if at an image of herself.

"You're still lying there," she said.

"I'll get up."

"Do."

"Are you all right?" he said.

"Casey, do you have any idea how many times a day you ask that question? Get the boys up or I will not be all right."

He went into the boys' room and nudged and tickled and kissed them awake. Their names were spelled out in wooden letters across the headboards of their beds, except that Rodney, the younger of the two, had some time ago pulled the *R* down from his headboard. Because of this, Casey and Michael called him Odney. "Wake up, Odney,"

Casey murmured, kissing the boy's ear. "Odney, Odney, Odney." Rodney looked at him and then closed his eyes. So he stepped across the cluttered space between the two beds to Michael, who also opened his eyes and closed them.

"I saw you," Casey said.

"It's a dream," Michael said.

Casey sat down on the edge of the bed and put his hand on the boy's chest. "Another day, another school day."

"I don't want to," Michael said. "Can't we stay home today?"

"Come on. Rise and shine."

Rodney pretended to snore.

"Odney's snoring," Michael said.

Casey looked over at Rodney, who at five years old still had the plump, rounded features of a baby, and for a small, blind moment he was on the verge of tears. "Time to get up," he said, and his voice left him.

"Let's stop Odney's snoring," Michael said.

Casey carried him over to Rodney's bed, and they wrestled with Rodney, who tried to burrow under his blankets. "Odney," Casey said. "Where's Odney? Where did he go?"

Rodney called for his mother, laughing, and so his father let him squirm out of the bed and run, and pretended to chase him. Jean was in the kitchen, setting out bowls and boxes of cereal. "Casey," she said, "we don't have time for this." She sang it at him as she picked Rodney up and hugged him and carried him back to his room. "Now, get ready to go, Rodney, or Mommy won't be your protector when Daddy and Michael want to tease you."

"Blackmail," Casey said, delighted, following her into the kitchen. "A clear case of blackmail."

"Casey, really," she said.

He put his arms around her. She stood quite still and let him kiss her on the side of the face. "I'll get them going," he said. "Okay?"

"Yes," she said. "Okay."

He let go of her and she turned away, seemed already to have forgotten him. He had a sense of having badly misread her. "Jean?" he said.

"Oh, Casey, will you *please* get busy."

He went in and got the boys going. He was a little short with them both. His voice had just enough irritation for

them to notice and grow quiet. They got themselves dressed, and he brushed Rodney's hair and straightened his collar while Michael made the beds. Then they all walked into the kitchen and sat at their places without speaking. Jean had poured cereal and milk and made toast. She sat eating her cereal and reading the back of the cereal box.

"All ready," Casey said.

She nodded at him. "I called Dana and told her I'd probably be late."

"You're not going to be late."

"I don't want to have to worry about it. They're putting that tarry stuff down on the roads today, remember? I'm going to miss it. I'm going to go around the long way."

"Okay. But it's not us making you late."

"I didn't say it was, Casey."

"I don't want toast," Rodney said.

"Eat your toast," Jean said.

"I don't like it."

"Last week you loved toast."

"Nu-uh."

"Eat the toast, Rodney, or I'll spank you."

Michael said, "Really, Mom. He doesn't like toast."

"Eat the toast," Casey said. "Both of you. And Michael, you mind your own business."

Then they were all quiet. Outside, an already gray sky seemed to grow darker. The light above the kitchen table looked meager; it might

even have flickered, and for a bad minute Casey felt as if the whole morning were something presented to him in the helplessness of sleep.

HE USED TO THINK THAT ONE DAY HE WOULD LOOK back on these years as the happiest time, frantic as things were: he and Jean would wonder how they got through it; Michael and Rodney, grown up, with children of their own, might listen to the stories and laugh. How each day of the week began with a rush to get everyone out the door on time. How even with two incomes they never had enough money. How time and the space to put things were so precious and how each weekend was like a sort of collapse, spent sleeping or watching too much television. And how when they *had* a little time to relax, they felt in some ways just as frantic about that, since it



would so soon be gone. Jean was working full time as a dental assistant, cleaning people's teeth and telling them what they already knew—that failure to brush and floss meant gum disease; it amazed her that so many people seemed to think that no real effort or care was needed. The whole world looked lazy, negligent, to her. And then she would come home to all the things she lacked energy for. Casey, who spent his day in the offices of the Point Royal Ballet Company, worrying about grants, donations, ticket sales, and promotions, would do the cooking. It was what relaxed him. Even on those days when he had to work into the evening hours—nights when the company was performing or when he was involved with a special promotion—he liked to cook something when he got home. When Michael was a baby, Jean would sometimes get a baby-sitter for him and take the train into town on the night of a performance. Casey would meet her at the station, which was only a block away from the hall. They would have dinner together, and then they would go to the ballet.

Once, after a performance, as they were leaving the hall, Jean turned to him and said, "You know something? You know where we are? We're where they all end up—you know, the lovers in the movies. When everything works out and they get together at the end—they're headed to where we are now."

"The ballet?" he said.

"No, no, no, no, no. Married. And having babies. That. Trying to keep everything together and make ends meet, and going to the ballet and having a baby-sitter. Get it? This is where they all want to go in those movies."

He took in a deep breath of air. "We're at happily ever after, is what you're saying."

She laughed. "Casey, if only everyone was as happy as you are. I think I was complaining."

"We're smack dab in the middle of happily ever after," Casey said, and she laughed again. They walked on, satisfied. There was snow in the street, and she put her arm in his, tucked her chin under her scarf.

"Dear, good old Casey," she said. "We don't have to go to work in the morning, and we have a little baby at home, and we're going to go there now and make love. What more could anyone ask for?"

A moment later Casey said, "Happy?"

She stopped. "Don't ask me that all the time. Can't you tell if I'm happy or not?"

"I like to hear you say you are," Casey said, "that's all."

"Well, I *are*. Now walk." She pulled him, laughing, along the slippery sidewalk.

SOMETIMES, NOW THAT SHE'S GONE, HE THINKS OF that night and wonders what could have been going on in her mind. He wonders how she remembers that night, if she thinks about it at all. It's hard to believe the marriage is over, because nothing has been settled or established; something got under his wife's skin, something

changed for her, and she had to get off on her own to figure it all out.

He had other dreams before she left, and their similarity to the first one seemed almost occult to him. In one, he and Jean and the boys were walking along a quiet, tree-shaded road; the shade grew darker, and they came to another intersection. Somehow they had entered a congested city street. Tenements marched up a hill to the same misty nimbus of light. Casey recognized it, and the shift took place: a disturbance, the sudden pathology of the city—gunshots, shouts. A shadow figure arrived in a rusted-out truck and offered them a ride. The engine raced, and Casey tried to shield his family with his body—only the engine was at his back, and then a voice whispered, "Which of you wants it first?"

"A horrible dream," he said to Jean. "It keeps coming at me in different guises."

"We can't both be losing our minds," Jean said. She couldn't sleep nights. She would gladly take his nightmares if she could just sleep.

ON THE MORNING OF THE DAY SHE LEFT, HE WOKE to find her sitting at her dressing table, staring at herself. "Honey?" he said.

"Go back to sleep," she said. "It's early."

He watched her for a moment. She wasn't doing anything. She simply stared, as if she had seen something in the mirror. "Jean," he said, and she looked at him exactly the same way she had been looking at the mirror. He said, "Why don't we go to the performance tonight?"

"I'll be too tired by then," she said. Then she looked down and muttered, "I'm too tired right now."

She had awakened the boys; they were playing in their room. Their play grew louder, and then they were fighting. Michael screamed; Rodney had hit him over the head with a toy fire engine. It was a metal toy, and Michael sat bleeding in the middle of the bedroom floor. Both boys were crying as Casey made Michael stand and located the cut in his scalp. Jean had come with napkins and the hydrogen peroxide. She was very pale, all the color gone from her lips. "I'll do it," she said, when Casey tried to help. "Get Rodney out of here."

He took Rodney by the hand and walked him into the living room. Rodney still held the toy fire engine and was still crying. Casey bent down and took the toy, and then moved to the sofa and sat down so that his son was facing him, standing between his knees. "Rodney," he said, "listen to me, son." The boy sniffled, and tears ran down his face. "Do you know you could have really hurt him, you could really have hurt your brother?"

"Well, he wouldn't leave me alone."

The fact that the child was unrepentant, even after having looked at his brother's blood, made Casey a little sick to his stomach. "That makes no difference," he said.

Jean came through from the hallway, carrying a bloody napkin. "Is it bad?" he said to her as she went into the

kitchen. When she came back, she had a roll of paper towels. "He threw up, for Christ's sake. No, it's not bad. It's just a nick. But there's a lot of blood." She reached down and yanked Rodney away from his father. "Do you know what you did, young man? Do you? Do you?" She shook him. "Well, do you?"

"Hey," Casey said, "take it easy, honey."

"Agh," she said, letting go of Rodney. "I can't stand it anymore."

Casey followed her into the bedroom, where she sat at the dressing table and began to brush her hair furiously.

"Jean," he said, "I wish we could talk."

"Oh, Jesus, Casey." She started to cry. "It's not even eight o'clock and we've already had this. It's too early for everything. I get to work and I'm exhausted. I don't even think I can stand it." She put the brush down and looked at herself, crying. "Look at me, would you? I look like death." He put his hands on her shoulders, and then Rodney was in the doorway.

"Mommy," Rodney whined.

Jean closed her eyes and shrieked, "Get out of here!"

Casey took the boy into his room. Michael was sitting on his bed, holding a napkin to his head. A little pool of sickness was on the floor at his feet. Casey got paper towels and cleaned it up. Michael looked at him with an expression of pain, of injured dignity. Rodney sat next to Michael and folded his small hands in his lap. Both boys were quiet, and Casey wondered if he could teach them something in this moment. But all he could think to say was, "No more fighting."

DANA IS THE WIFE OF THE DENTIST JEAN HAS worked for since before she met Casey. The two women became friends while Dana was the dentist's receptionist. The dentist and his wife live in a large house on twenty acres not far from the city. They have an indoor pool and tennis courts, fireplaces in the bedrooms. They have plenty of space for Jean, who moved in on a Friday afternoon almost a month ago. That day she just packed a suitcase; she was going to spend a weekend at Dana's, to rest. It was going to be just a little relaxation, a little time away. Just the two days. But then, Sunday after-

noon, she phoned to say she would be staying on through the week.

"You're kidding me," Casey said.

And she began to cry.

"Jean," he said, "for God's sake."

"I'm sorry," she said, crying. "I just need some time."

"Time," he said. "Jean. Jean."

She breathed once, and when she spoke again he heard resolution in her voice, a definiteness that made his heart hurt. "I'll be over to pick up a few things tomorrow afternoon."

"Look," he said, "what is this? What about us? What about the boys?"

"I don't think you should let them see me tomorrow. This is hard enough for them."

"What is, Jean?"

She said nothing. He thought she might have hung up.

"Jean," he said. "Good Christ. Jean."

"Please don't do this," she said.

Casey shouted into the phone. "You're saying that to *me*!"

"I'm sorry," she said, and hung up.

He dialed Dana's number, and Dana answered.

"I want to speak to Jean, please."

"I'm sorry, Casey—she doesn't want to talk now."

"Would you—" he began.

"I'll ask her. I'm sorry, Casey."

"Ask her please to come to the phone."

He heard a shuffling sound, and he knew Dana was holding her hand over the receiver. He heard another shuffling, and Dana spoke to him. "I hate to be in the middle of this, Casey, but she doesn't want to talk now."

"Will you please ask her what I did."

"I can't do that. Really. Please, now."

"Just tell her I want—Goddamn it—I want to know what I did."

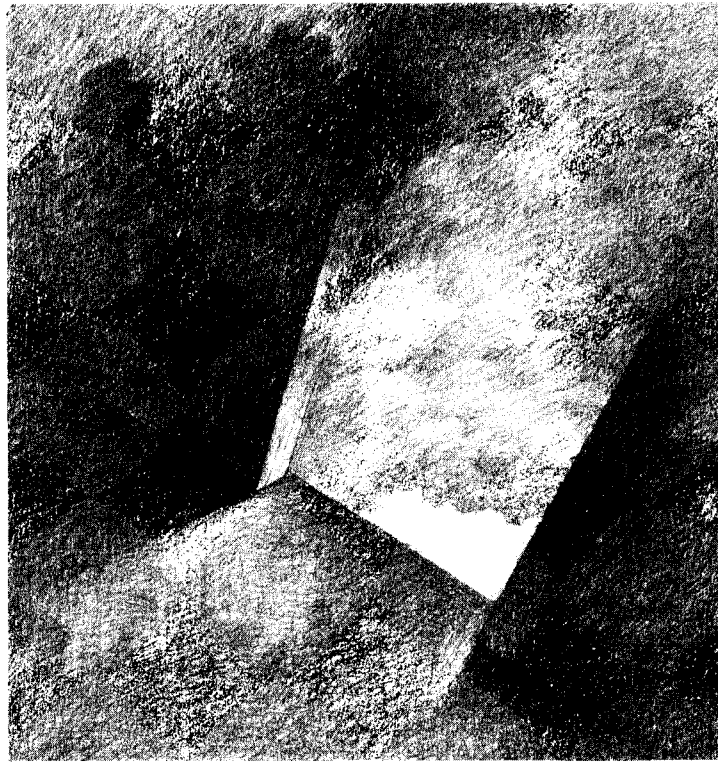
He heard yet another shuffling sound, only this time Casey could hear Dana's voice, sisterly and exasperated and pleading.

"Dana," he said.

Silence.

"Dana."

And Dana's voice came back, very distraught, almost frightened. "Casey, I've never hung up on anyone in my life. I have a real fear of ever doing anything like that to



anyone, but if you curse at me again, I will. I'll hang up on you. Jean isn't going to talk to anyone on the phone tonight. Really, she's not, and I don't see why I have to take the blame for it."

"Dana," he said, "I'm sorry. Tell her I'll be here tomorrow—with her children. Tell her that."

"I'll tell her."

"Good-bye, Dana." He put the receiver down. The boys' room was quiet, and he wondered how much they had heard, and—if they had heard enough—how much they had understood. He had dinner to make, but he'd done it before, so it offered no difficulty except that he prepared it knowing that his wife was having some sort of nervous breakdown and was unreachable in a way that made him angry as much as it frightened him. The boys didn't eat the fish he fried, or the potatoes he baked. They had been sneaking cookies all day while he watched football. He couldn't eat either, and so he didn't scold them for their lack of appetite and only reprimanded them mildly for their pilferage. Shortly after the dinner dishes were done, Michael began to cry. He said he had seen something on TV that made him sad, but he had been watching *Dukes of Hazzard* reruns.

"My little tenderhearted man," Casey said, putting his arms around the boy.

"Is Mommy at Dana's?" Rodney asked.

"Mommy had to go do something," Casey said.

He put them to bed. He wondered, as he tucked them in, if he should tell them now that their mother wouldn't be there in the morning. It seemed too much to tell a child before sleep. He stood in their doorway, imagining the shadow he made with the light behind him in the hall, and told them good night. Then he went into the living room and sat staring at the shifting figures on the television screen. Apparently, *The Dukes of Hazzard* was over; he could tell by the music that this was a serious show. A man with a gun chased another man with a gun. It was hard to tell which one was the hero, and Casey began to concentrate. Both men proved to be gangsters, and Jean, who used to say that sometimes she put TV on only for the voices, the company at night, had just told him that she was not coming home. He turned the gangsters off in mid-chase and stood for a moment, breathing fast. The boys were whispering and talking in the other room.

"Go to sleep in there," he said, keeping his voice steady. "Don't make me have to come in there." He listened. In a little while, he knew, they would begin it all again; they would keep it up until they got sleepy. He turned the television back on, so that they wouldn't have to worry that he might hear them, and then he lay back on the sofa, miserable, certain that he would be awake all night. But sometime toward the middle of the late movie he fell asleep and had another dream. It was, really, the same dream. He was with Jean and the kids in a building, and they were looking for a way out. One of the boys opened a door on empty space, and Casey, turning, understood that this place was hundreds of feet above the street.

The wind blew at the opening like the wind at the open hatch of an airliner, and someone was approaching from behind them. He woke up sweating, disoriented, and saw that the TV was off. With a tremendous settling into him of relief, he thought that Jean had changed her mind and come home, had turned the TV off and left him there to sleep. But the bedroom was empty. "Jean?" he said into the dark. "Honey?" No one was there. He turned the light on.

"Daddy, you fell asleep watching television," Michael said from his room.

"Oh," Casey said. "Thanks, son. Can't you sleep?"

"Yeah."

"Well—good night, then."

"Night."

SO JEAN IS GONE. CASEY KEEPS THE HOUSE AND THE boys. He's told them their mother is away because these things happen; he's told them she needs a little time to herself. He hears Jean's explanations to him in everything he says, and he can't think of anything else to say. It's as if they are all waiting for her to get better, as if this trouble were something physiological, an illness that deprives them of her as she used to be. Casey talks to her on the phone now and then, and it's always oddly as if they have never known anything funny or embarrassing about each other, and yet are both now funny and embarrassed. They talk about the boys; they laugh too quickly and stumble over normal exchanges, like *Hello* and *How are you?* and *What have you been up to?* Jean has been working longer hours, making overtime from Dana's husband. Since Dana's husband's office is right downstairs, she can go for days without leaving the house if she wants to. She's feeling rested now. The overtime keeps her from thinking too much. Two or three times a week she goes over to the boys' school and spends some time with them; she's been a room mother since Michael started there, two years ago, and she still does her part whenever there's something for her to do. She tells Casey over the phone that Rodney's teacher seems to have no inkling that anything has changed at home.

Casey says, "What *has* changed at home, Jean?"

"Don't be ridiculous," she says.

The boys seem in fact to be taking everything in stride, although Casey sees a reticence about them now; he knows they're keeping their feelings mostly to themselves. Once in a while Rodney asks, quite shyly, when Mommy's coming home. Michael shushes him. Michael is being very grown up and understanding. He acts as if he's five years older than he is. At night he reads to Rodney from his Choose Your Own Adventure books. Casey sits in the living room and hears this. And when he has to work late, has to leave them with a baby-sitter, he imagines the baby-sitter hearing it, and feels soothed somehow—almost, somehow, consoled, as if simply to imagine such a scene is to bathe in its warmth: a slightly older boy reading

to his brother, the two of them propped on the older brother's bed.

This is what he imagines tonight, the night of the last performance of *Swan Lake*, as he stands in the balcony and watches the hall fill up. The hall is sold out. Casey gazes at the crowd and the thought runs through his mind that all these people are carrying their own scenes, things that have nothing to do with ballet, or polite chatter, or finding a numbered seat. The fact that they all move as quietly and cordially to their places as they do seems miraculous to him. They are all in one situation or another, he thinks, and at that instant he catches sight of Jean; she's standing in the center aisle below him. Dana is with her. Jean is up on her toes, looking across to the other side of the hall, where Casey usually sits. She turns slowly, scanning the crowd. Casey imagines that he knows what her situation is. The crowd surges around her. And now Dana, also looking for him, finds him, touches Jean's shoulder, and actually points at him. He feels strangely inanimate, and he steps back a little, looks away from them. But this is too obviously a snub, and he knows it, and a moment later he steps forward again to see that Dana is alone down there, that Jean is already lost somewhere else in the crowd. Dana is gesturing for him to remain where he is. The orchestra members begin taking their places in the orchestra pit and tuning up; there's a smattering of applause. Casey finds a seat near the railing and sits with his hands folded in his lap, waiting. When this section of the balcony begins to fill up, he rises, looks for Dana again, and can't find her. Someone edges past him along the railing, so he moves to the side aisle, against the wall; he sees Jean come in, and watches her come around to where he is.

"I was hoping you'd be here tonight," she says, smiling. She touches his forearm and then leans up and gives him a dry little kiss on the mouth. "I wanted to see you."

"You can see me anytime," he says. He can't help the contentiousness in his voice.

"Casey," she says, "I know this is just the worst time. It's just that—well, Dana and I were coming to the performance, you know, and I started thinking how unfair I've been to you, and, and it just doesn't seem right."

Casey stands there looking at her.

"Can we talk a little," she says, "outside?"

He follows her up to the exit and out along the corridor to a little alcove leading to the restrooms; she finds a red velvet armchair, which she sits in, and then she pats her knees as if she expected him to settle into her lap. But she's only smoothing her skirt over her knees, stalling. Casey pulls another chair over and then stands behind it, feeling a dizzy, unfamiliar sense of suffocation. He thinks of swallowing air, pulls his tie loose, and breathes.

"Well," she says.

"The performance is going to start any minute," he says.

"I know," she says. "Casey—" She clears her throat, holding the backs of her fingers over her lips. It is a completely uncharacteristic gesture, and he wonders if she might have picked it up from Dana. "Well," she says, "I

think we have to come to some sort of agreement about Michael and Rodney. I mean, seeing them in school"—she sits back, not looking at him—"you know, and talking on the phone and stuff—I mean, that's no good. I mean, none of this is any good. Dana and I have been talking about this quite a lot, Casey. And, you know, just because you and I aren't together anymore—that's no reason the kids should have to go without their mother."

"Jean," he says, "what—what—" He sits down. He wants to take her hand.

She says, "I think I ought to have them a while. A week or two.

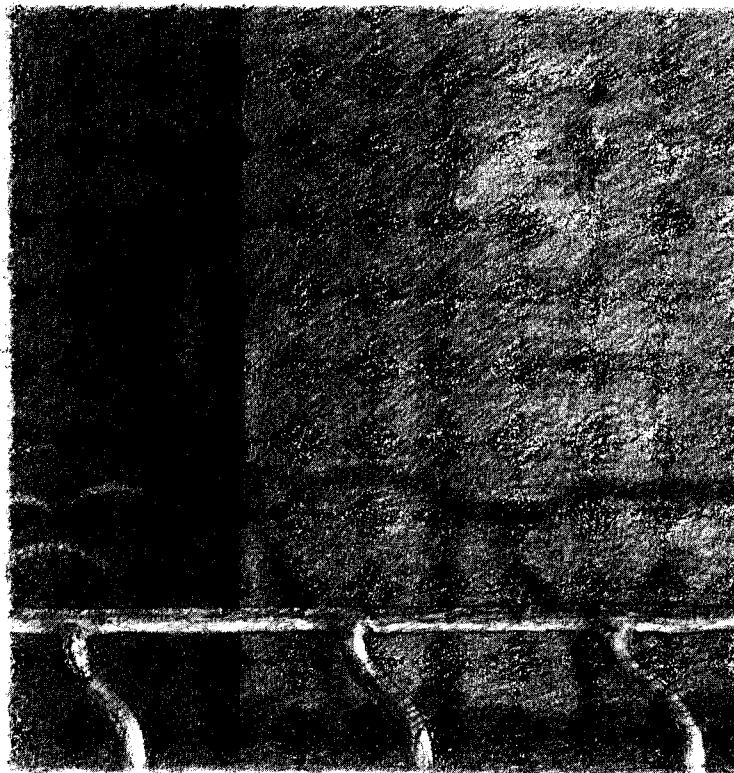
Dana and I have discussed it, and she's amenable to the idea. She has plenty of room and everything, and pretty soon I'll be—I'll be getting a place." She moves the tip of one finger along the soft surface of the chair arm, and seems to have to fight off tears.

He reaches over and takes her hand. "Honey," he says.

She pulls her hand away, quite gently, but with the firmness of someone for whom this affection is embarrassing. "Did you hear me, Casey? I'm getting a place of my own. We have to decide about the kids."

Casey stares at her, watches as she opens her purse and takes out a handkerchief to wipe her eyes; it comes to him very gradually that the orchestra has begun to play. She seems to notice it too now. She puts the handkerchief back in her purse and snaps it shut, and then seems to gather herself.

"Jean," he says, "for God's sweet sake."



"Oh, come on," she says, her eyes swimming, "you knew this was coming. How could you not know this was coming?"

"I don't believe this," he says. "You come here to tell me this. At my Goddamn job." His voice has risen almost to a shout.

"Casey," she says.

"Okay," he says, rising. "I know you." It makes no sense. He tries to find something to say to her; he wants to say it all out in an orderly way that will show her. But he stammers. "You're not having a nervous breakdown," he hears himself tell her, and then he repeats it, almost as if he were trying to reassure her. "This is really it, then," he goes on. "You're not coming back."

She stands. It's as if she's not sure he's serious. She steps away from him and gives him a regretful look.

"Jean, we didn't even have an argument," he says. "I mean, what is this about?"

"Casey, I was so unhappy all the time. Don't you remember anything? Don't you see how it was? And I thought it was because I wasn't a good mother. I didn't even like the sound of their voices. But it was just unhappiness. I see them at school now and I love it. It's not a chore now. I work like a dog all day and I'm not tired. Don't you see? I feel good all the time now, and I don't even mind as much when I'm tired or worried."

"Then—" he begins. He can't say anything. He's left with the weight of himself, standing there before her.

"Try to understand, Casey. It was ruining me for everyone in that house. But it's okay now. I'm out of it and it's okay. I'm not dying anymore in those rooms and everything on my nerves and you around every corner—" She stops.

"You know what you sound like?" he says. "You sound ridiculous, that's what you sound like." And the ineptness of what he has just said, the stupid, helpless rage of it, produces in him a tottering moment of wanting to put his hands around her neck. The idea comes to him so clearly that his throat constricts and a fan of heat opens across the back of his head. He holds on to the chairback and seems to hear her say that she'll be in touch, through a lawyer if that will make it easier, about arrangements concerning the children. He knows it's not cruelty that brought her here to tell him a thing like this, it's cowardice.

"I wish I knew of some other way," she tells him, and then turns and walks along the corridor to the stairs and down. He imagines the look she'll give Dana when she gets to her seat; she'll be someone relieved of a situation, glad something's over with.

Back in the balcony, in the dark, he watches the figures leap and stutter and whirl on the stage, and when the performance ends, he watches the hall empty out. The musi-

cians pack their music and instruments; the stage crew dismantles the set. When he finally rises, it's past midnight. Everyone's gone.

He makes his way home and, arriving, doesn't remember driving there. The baby-sitter, a high school girl from up the street, is asleep on the sofa in the living room. He's much later than he said he would be. She hasn't heard him come in, and so he has to try to wake her without frightening her. He has this thought clear in his mind as he watches his hand roughly grasp her shoulder and hears himself say, loudly, "Get up!"

The girl opens her eyes and looks blankly at him, and then she screams. He would never have believed this of himself. She is sitting up now, still not quite awake, her hands flying up to her face. "I didn't mean to scare you," he says, but it's obvious that he did mean to scare her, and while she struggles to get her shoes on, her hands shaking, he counts out the money to pay her. He gives her an extra five dollars, and she thanks him for it in a tone that lets him know it mitigates nothing. When he moves to the door with her, she tells him she'll walk home; it's only up the block. Her every movement expresses her fear of him now. She lets herself out, and Casey stands in his doorway under the porch light and calls after her that he is so very sorry and he hopes she'll forgive him. She goes quickly along the street and is out of sight.

Casey stands there and looks at the place where she disappeared. Perhaps a minute goes by. Then he closes the door and walks back through the house, to the boys' room. Rodney is in Michael's bed with Michael, the two of them sprawled there, arms and legs tangled, blankets knotted and wrapped, the sheet pulled from a corner of the mattress. It's as if this has all been dropped from a great, windy height. Casey kisses his sons, and then gets into Rodney's bed. He looks over at the shadowy figures across from him. The lights are still on in the hall and in the living room. He thinks of turning them off, and then dreams that he does, that he walks through the rooms, locking windows and closing doors. In this dream, he can't quite see, he can't open his eyes wide enough. He hears sounds. An intruder is in the house. Many intruders. He's in the darkest corner, and he can hear them moving toward him. He turns, still trying to get his eyes wide enough to let light in, only now something has changed: he knows he's dreaming. It comes to him with a rush of power that he's dreaming and can do anything now, anything he wants to. He luxuriates in this as he tries to hold on to it, feels how precarious it must be. He takes a step, and it is as quiet as the sound after death. He knows he can begin now, so he begins. He glides through the house, tracks the intruders down. He is relentless. He destroys them, one by one. He wins. He establishes order. □



FIRST ENCOUNTERS

J. K. GALBRAITH AND J. M. KEYNES

SOMEWHAT TO HIS surprise, John Kenneth Galbraith—a young man from rural Canada with a Ph.D. in economics—found himself in 1941 in Washington, in charge of wartime price controls for the entire United States. The job of “price czar” was a thankless one, but it commanded a degree of power from which, he would later say, the rest of his life was all downhill. One busy day in late spring his secretary announced that a “Mr. Kines” wanted to see him. The name stirred no recognition, and Galbraith told her to put him off. The secretary persisted: “I have the feeling that Mr. Kines somehow *expects* you to see him.” Realization dawned: “Kines” was “Kānes”—that is, Keynes. Galbraith felt, he said, like a parish priest who has the Pope in his outer office.

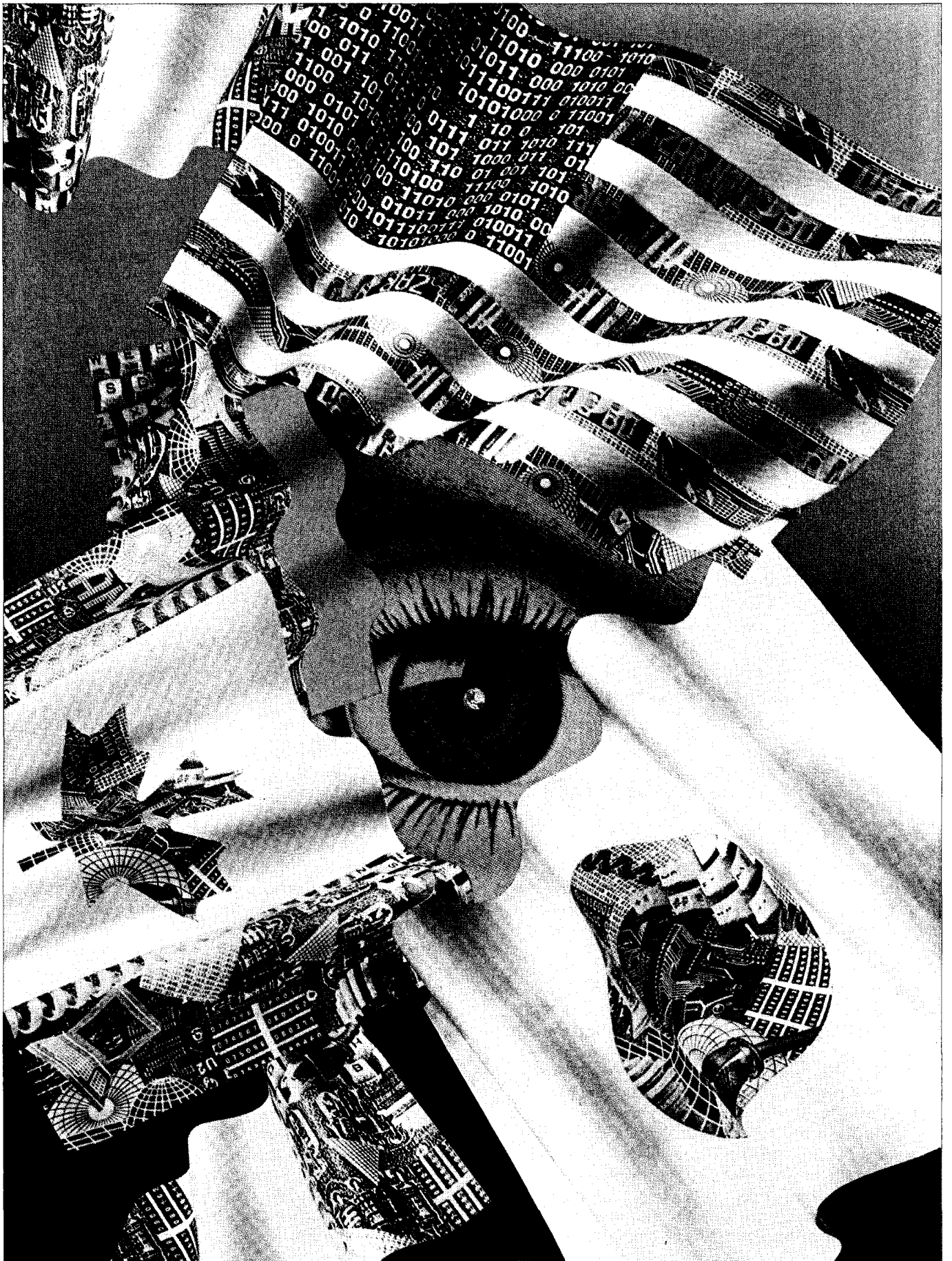
John Maynard Keynes was the guru of the new economics. Young enthusiasts like Galbraith heralded his concept of state responsibility for economic management, even to the point of deficit spending, as revolutionary (American businessmen said heretical) and appointed themselves his disciples. Galbraith had even gone to Cam-

bridge to study under him, but Keynes was recovering from a heart attack and did not teach that year.

Now he had materialized in Galbraith’s office, quite without fanfare. Keynes came right to the point, which was hogs and corn—or, as he termed it, pigs and fodder. He had brought along “A Memorandum on the Pig/Pig Fodder Ratio,” and he was anxious to talk about the very important matter of how to price corn in relation to hogs to avoid wasted grain but still ensure an adequate supply of pork. Keynes was ever the pragmatist. As bursar of King’s College, he regularly oversaw the farming of college land, studied the finer points of livestock, and attended pig sales, and he had even tried breeding.

Any semblance of work was abandoned that day. Later there would be discussions of a more arcane nature, but Galbraith never forgot that on this first occasion he and Keynes met not as the young price czar and the most influential economist of the century but as an ex-farmboy and his much-admired mentor, who just happened to run a pig farm on the side.

—Nancy Caldwell Sorel



*In the emerging debate about how to restore America's technological pre-eminence
we are misconstruing the problem and advancing the wrong solutions*

THE RISE OF TECHNO-NATIONALISM

BY ROBERT B. REICH

ON OCTOBER 23, 1986, FUJITSU, LTD., THE LARGE JAPANESE electronics company, announced that it would buy Fairchild Semiconductor Corporation, a Silicon Valley firm. (Fairchild had needed cash in order to stay competitive; its executives had approached Fujitsu, which had been seeking to acquire an American technology company.) The announcement of the proposed sale was greeted with dismay in Washington. Fairchild produces high-speed electronic circuits on tiny chips of silicon, which instruct all sorts of weapons systems in how they should operate. Between a third and a half of Fairchild's production is sold to American defense contractors. Pentagon officials worried that the proposed sale would put critical technology into the hands of the Japanese. Officials in the Commerce Department were concerned that the deal would give Fujitsu control over related chip technologies that are used in many American products, from automobiles to telecommunications equipment—at a time when American competitiveness is thought to be in jeopardy.

The Reagan Administration never decided whether to ban the sale. It didn't have to. Citing the "rising political controversy" in the United States, Fujitsu finally decided to drop the deal on its own. But the concern that the proposed deal aroused is itself noteworthy. Fairchild is not the only American company producing such specialized chips. Technically it is not even an American company; it was bought in 1979 by Schlumberger, the French oil-field-services firm. The proposed sale to Fujitsu would violate no American law. Nevertheless, the deal has touched a raw nerve. All over America there is growing worry that the Japanese are running off with our technology.

This new concern is, I believe, misplaced. Americans are correct to worry about national technological prowess, but not about Japanese access to our technology. The emerging debate over how to restore America's technological pre-eminence misconstrues the problem and thus advances the wrong solutions. The underlying predicament is not that the Japanese are exploiting our discoveries but that we can't turn basic inventions into new products nearly as fast or as well as they can. Rather than guard our technological breakthroughs, we should learn how better to make use of breakthroughs wherever they occur around the globe. In this the Japanese may have much to teach us.

WITH THE NOTABLE EXCEPTIONS OF RESTRICTIONS on the transfer of "sensitive" technologies to the Soviets and their allies, on the sale of major weapons systems, and on the pursuit of classified research by Eastern-bloc nationals, techno-globalism has been the norm in America. From the techno-globalist's point of view, it is meaningless to speak of America's discoveries and technological breakthroughs relative to those of Japan, West Germany, or any other friendly nation, because there is no way to separate "our" technological advances from "theirs." Technological development is a joint product of multinational institutions—universities, research laboratories, corporations, even defense programs—that link talented people from all corners of the globe through computers, satellite communications, and jet airplanes.

This organizing principle has taken deep root in America. Basic research is now a worldwide undertaking. The scientists and engineers who populate American universities and laboratories typically think of themselves as members of a global community of researchers, who work jointly on projects, meet periodically in international conferences, exchange papers, and publish their findings worldwide. Their graduate students come from every nation on earth (last year more foreign students than American students received Ph.D.s in engineering from American universities; most of these graduates returned to their home countries). Even the funding of American university research is now global. A substantial portion is sponsored by foreign companies, especially Japanese.

Foreign companies, meanwhile, are setting up research laboratories in the United States, and staffing them with American scientists and engineers. American companies are doing much the same abroad—especially in Japan. More than 180 Japanese scientists and technicians now populate Du Pont's Yokohama laboratory, where they develop new materials technologies. IBM is investing heavily in Japanese research: at IBM's Tokyo Research Laboratory, tucked away behind the far side of the Imperial Palace in downtown Tokyo, a small army of Japanese engineers is busy perfecting image-processing technology. At IBM's Kanagawa lab, in Yamato City, Japan, 1,500 researchers are developing hardware and software for the next generation of computers.

In 1986 Japanese companies placed more than \$250 million in U.S. venture-capital funds. Rather than high financial returns, the Japanese want licensing, marketing, and joint-venture agreements with the companies they back. American companies likewise are buying some of their most complex technologies from foreign firms. West Germany's Siemens and Canada's Northern Telecom have become key suppliers of electronic components used by American makers of telecommunications equipment. West German and Italian companies are supplying other American manufacturers with precision castings, forgings, and ball bearings.

Even the Defense Department, which is responsible for funding about 40 percent of all the research and development undertaken in the United States, has for the most part adopted an ecumenical attitude toward the advancement of new technologies. In 1983 it got Tokyo's agreement to allow Japanese companies to sell or license technology to American corporations working under contract to the Pentagon (marking the first time that the Japanese government had allowed Japanese companies to work even indirectly on American defense contracts). Last year the Pentagon secured West Germany's and Japan's cooperation on Star Wars research. Our allies remain skeptical that Star Wars will ever work as advertised. But they were seduced into joining the effort by the prospect of picking up expertise in the technologies involved—technologies that, they believed, would be important to their future economic competitiveness.

Techno-globalism, in sum, has come to be America's central, albeit tacit, organizing principle for developing new technologies. The notion of "American" technology has thus become a meaningless concept. Across a broad expanse of the globe (excluding little but the Soviet Union and its allies) national boundaries have in this respect become less and less relevant.

The New Concern

THE PRINCIPLE OF TECHNO-GLOBALISM HAS HELPED American universities, corporations, and the Pentagon accomplish what each of these institutions has understood to be its primary goal: generating, respectively, new knowledge, high profits, and state-of-the-art weaponry. But other interests are at stake as well, and they appear to be in fundamental conflict with these more proximate goals. Increasingly, techno-globalism is being challenged by a different organizing principle, which looks to America's relative prowess—both military and economic—in the world of sovereign nations.

There is a new concern that as America becomes ever more dependent on "them" for advanced technologies, our economic leadership will be threatened and our national defense imperiled. Two related phenomena lie behind this anxiety. The first is America's trade balance in high-technology goods like computers, communications equipment, and scientific instruments, which in 1986

turned negative for the first time ever. This negative balance is owing in part to the insatiable appetite of American consumers and government officials for all sorts of imports (of which high-tech products are a mere subset), and in part to the sluggishness of overall foreign demand. But the loss of competitiveness in high-technology products within our domestic markets is troublesome nonetheless. As our indebtedness to the rest of the world—particularly to Japan—steadily mounts, the loss of high-tech competitiveness threatens our standard of living. The only way to pay off the debt without dramatically lowering our standard of living some time in the future is to achieve equally dramatic increases in productivity. But to become that much more productive we would need to perfect and apply the very technologies in which Japan is gaining dominance. The knowledge gleaned by perfecting each new generation of technology spills over into other areas of the economy, creating a national pool of talent and technological experience that can improve productivity overall. But because each new generation of technology builds on that which came before, once off the technological escalator it's difficult to get back on. At best our standard of living would continue to fall relative to that of the Japanese.

The second phenomenon is our new commercial and military vulnerability to the Japanese, should they choose to hold back their high-tech gadgets from us. Japanese microelectronics, in particular, now lie at the heart of many American products—from telecommunications equipment to automobiles. They are also vital to our advanced weapons systems. Most primary defense contractors on advanced weapons systems are American firms, but, more and more, their subcontractors supplying the most advanced electronic components are Japanese. On the basis of data supplied by the Board of Army Science and Technology and the International Trade Commission, I estimate that 40 percent, by value, of the advanced electronics finding their way into American weapons systems are now coming from Japan. If the present trend continues, the proportion will rise to 55 percent within five years. A substantial portion of the advanced electronics for Star Wars will be produced in Japan.

In many cases American companies that *were* on the leading edge of microelectronics several years ago have simply dropped out of the running. With the costs of perfecting each new generation of technology escalating rapidly, and the time interval during which the investment can be recouped growing shorter, the price of staying in the race has often become too high relative to the return. A world-class factory for fabricating semiconductors now costs around \$200 million. By 1995, when x-ray lithography will be used to fabricate semiconductors, the cost will be \$1 billion. Few firms will be able to afford to stay in the race. Monsanto used to produce "float-zone" silicon, a material used in fabricating high-power electronic switching devices, indispensable to space-based weaponry. But since Monsanto abandoned the market, in 1983, the Pentagon has been totally dependent on Japanese companies

for it. Intel recently announced that it will cease production of "bubble" memories, used primarily in fighter planes and communications satellites. That will leave the Pentagon dependent on Hitachi and Fujitsu. The National Security Agency, charged with electronic eavesdropping and communications security, buys almost all its ceramic packages (used to house and protect the chip circuits) from one Japanese company, Kyocera. Richard Reynolds, the director of the Defense Sciences Office at the Defense Advanced Research Projects Agency, sums up the situation: "In some cases you either buy from Japan or you don't get it."

Most of the world's memory chips—the fingernail-sized circuits that drive just about every electronic gadget you can name, including almost all of the electronics necessary for Star Wars—are now made in Japan, which is also their largest market. Japanese companies are on the way to dominating world production of gallium-arsenide computer chips (capable of processing data much faster than conventional silicon chips), on which Star Wars is particularly dependent. The innards of supercomputers, also vital to Star Wars, increasingly come from Japan as well. Cray—the largest American manufacturer of supercomputers—must get its advanced memory chips from either Fujitsu or Hitachi. Japanese companies are even taking over the technologies needed to *make* advanced memory chips—everything from the microlithography that prints tiny circuits on slivers of silicon to the manufacture of the ceramic casings surrounding the circuits. Japanese companies are now the dominant producers of equipment for scrubbing and baking silicon wafers, for insulating the circuits, inspecting and testing them, and assembling and packaging them. The Japanese dominate world production of the materials of which chips are made, such as high-quality silicon and quartz glass. Japanese dominance extends even to the construction companies that produce "clean rooms," in which advanced chips are made.

In 1980 fifteen American companies, all of them profitable, were producing most of the world's memory chips, and American companies produced most of the components and equipment for making chips. By now most American producers of chip-making equipment have closed up shop. Only three American chip makers are still selling their wares on the open market, and all are hemorrhaging red ink. In 1986 American chip makers lost approximately \$800 million. Since 1981 they have laid off 65,000 workers. Erich Bloch, the director of the National Science Foundation, says, "The [American chip] industry is going downhill at a faster rate than anybody ever thought possible."

THE PENTAGON'S NEW VULNERABILITY IN MICRO-electronics is now a subject of heated debate in Washington, particularly at the highest reaches of the Pentagon and the National Security Council. Several months ago the NSC circulated a draft report on the extent

of American dependence on Japanese microelectronics. The report is notable not only for linking the two kinds of vulnerability—military and economic—but also for portraying America's interests in terms quite different from the prevailing globalism:

Leadership in research and development in advanced (non-silicon) semiconductor materials and devices seems to already be passing to Japan, especially in the optical electronic fields which may be the basis of the highest performance end products of the future. . . . With some significant exceptions computer software R & D is still clearly an American strength, but the Japanese are becoming expert in the architecture of mainframes and supercomputers, and obviously in the manufacturing engineering of personal computers. Telecommunication component research is becoming dominated by the Japanese, and while their strengths in downstream system and network industries are more limited, the trend is toward Japanese leadership in some communication systems based on their advantages in semiconductor components. Industrial automation is a field where the Japanese not only already dominate the present market, but also research and development in most subdisciplines. Clearly the conventional model of U.S. technological leadership in basic research followed by more successful Japanese commercial exploitation is no longer accurate in many of the critical technologies targeted by the Japanese.

According to the NSC report, this trend threatens not only America's defense capabilities but also its standard of living:

By the turn of the century, microelectronics will certainly have major direct effects upon the performance of industries which will directly account for perhaps a quarter of GNP, and which have powerful effects upon military capabilities, economy-wide productivity, and living standards. These include automobiles, industrial automation, computer systems, defense and aerospace products, telecommunications, and many consumer goods. . . . If the United States loses competitive advantage in these industries, its productivity, living standards, and growth will suffer severely. Moreover, these industries are dominated by a few nations and firms so that competitive advantage brings significant economic profits and political influence. Thus if the United States becomes a net importer and a technically inferior producer, it would also become a less independent, less influential, and less secure nation.

The immediate danger, according to the NSC report, is that Japanese high-tech firms could withhold their advanced chips and related technologies from American firms that have become dependent on them, and could thus "impede the ability of the United States to compete in almost any area of manufacturing."

The report speaks of America's declining technological strength and of Japan's coming technological lead. The adjectives alone convey the critical difference between this view and that of techno-globalism.

The Principle of Techno-Nationalism

NEW POLICIES ARE BEING PROPOSED TO HELP AMERICA pursue advanced technologies. The policies take many forms and are being advocated, piecemeal, in many quarters. Their unifying characteristic is the unambiguously national orientation they would give to the development of new technologies. The goal is to keep technological knowledge *here*. In contrast to the prevailing principle of techno-globalism, this one might be called techno-nationalism.

Listen to the new voice of techno-nationalism: When asked recently whether he would support a proposal to boost federal research funds for American universities on the condition that the research be restricted to American citizens, Richard Cyert, the president of Pittsburgh's prestigious Carnegie-Mellon University (one of America's centers of research on advanced industrial processes), responded affirmatively. "I'm sure it would be unpopular, in the sense that we like to think of ourselves as world citizens. . . . But we want to have America get some temporary advantage from the research that we can do."

Watch Congress turn toward techno-nationalism: The Federal Technology and Transfer Act of 1986, quietly passed by the Ninety-ninth Congress, authorizes America's national laboratories to license their inventions to private firms—but not just to any company willing to pay the highest price. The legislation requires that preference be given to American firms.

Watch American companies seek government's help in furthering techno-nationalism: The Semiconductor Industry Association, a trade group of American chip makers, is now joining forces with a congeries of giant American computer firms to create an ultramodern chip-production facility. Known as Sematech, the plant would be a proving ground for state-of-the-art equipment necessary for making the next generation of chips. "This is our last chance," the president of the trade group told me not long ago. "If we lose the ability to make this equipment in America, we might as well fold up the tent." Every major American chip producer and computer manufacturer has signed up to participate in the project, the cost of which will exceed \$1 billion over the next five years. The group is asking the Pentagon to pay a substantial portion of the cost. (No decision yet from that quarter.) But here's the selling point: Whatever state-of-the-art devices emerge from this ambitious project must go only to American companies.

One of the strongest recommendations to emerge from all the policy panels, industry groups, and think tanks is to increase federal spending for American research and development. In a report to the Secretary of Defense, for example, the Defense Science Board recommended that the U.S. government spend roughly \$2 billion over the next five years for semiconductor research and development. About half that sum would go to the above-mentioned project, from which foreign companies would be banned. The remainder would establish university "centers for ex-

cellence" in scientific and engineering research (open to American researchers) and directly fund semiconductor research by American firms.

We can expect more of the same in the near future. Democrats in the Hundredth Congress are already devising plans for spurring American technology by spending more on research and development by American companies. The White House, meanwhile, is exploring ways to tap Star Wars research for American commercial technology, and to ward off further Japanese takeovers of American companies in "strategic" industries. The Administration is seeking to double the budget of the National Science Foundation, sponsor science and technology centers in American universities, and fund giant research projects, such as a \$6 billion particle accelerator.

The overriding goal of these initiatives is to protect future American technological breakthroughs from exploitation at the hands of foreigners, especially the Japanese. In contrast to techno-globalism, this new principle presumes the possibility—indeed, the necessity—of viewing American technology as a body of knowledge separate and distinct from that possessed by other nations. Technology is viewed as something that can be uniquely American—developed here, contained within the nation's borders, applied in America by Americans. It is like a precious commodity that we should save for ourselves rather than allow foreigners to carry off.

The Wages of Techno-Nationalism

TECHNO-NATIONALISM FACES THREE FORMIDABLE difficulties. First and most obvious is the logistical challenge of confining new knowledge within national borders. Modern technology typically doesn't leak out in boxcars or briefcases. Instead, blueprints and designs flow out over the airwaves, by satellite, from one computer to another.

The second challenge is more paradoxical. As we have seen, American universities, corporations, and even the Defense Department are now international endeavors. Their technological advances come by way of global projects that draw upon talented people the world over. To graft techno-nationalism onto these techno-global systems leads to absurd results.

The paradox becomes clear when considering how any of these initiatives might actually work in practice. How, for example, might an American university go about the task of excluding foreigners from major research projects? The first problem would be how to define who was foreign. A good many American university professors and graduate students are of foreign origin and only later become American citizens. Some are permanent resident aliens; some, here on temporary visas, hope and expect to remain in the United States. Some are American citizens who plan to teach and live abroad for long periods of time after they finish their research, and who will thus carry off whatever they learn. What about an American citizen em-

played by a Japanese company? Should he be excluded as well? Beyond the problem of deciding who should be excluded, there is the issue of what such people should be barred from doing. Should foreigners be permitted to enter American research laboratories? May they talk with American researchers about what's being learned? May they assist the American researchers—as research assistants or as administrative, clerical, or maintenance workers?

The questions grow even more tangled when it comes to distinguishing between American and foreign companies. Only American firms will be allowed to participate in the Sematech project; American firms will get first crack at inventions coming from national laboratories; the Defense Department doesn't want foreigners owning American high-tech companies. But what's an "American" firm?

Suppose that most of the shareholders and directors of a company are foreign, but its headquarters is in the United States and most of its employees are American. (This describes Fairchild before Fujitsu sought to take it over.) Does this firm qualify? Or suppose that a large and growing minority of the firm's shareholders are foreign, and 40 percent of its employees live and work abroad. Does this firm qualify? (It's IBM.)

Or consider an American-owned and -managed firm that has factories and research laboratories around the globe. This firm continuously applies what it discovers in one country to new products and processes being developed in another, and regularly shifts its scientists and engineers around the world. Should it be given special access to American technology? And what about an American-based firm that shares its technology with a Japanese firm and

markets the Japanese-made products in the United States? In both instances American firms are apt to be exploiting American technology but using it elsewhere. Do these firms pass muster?

Most American high-tech companies are well along in the process of losing their uniquely American identities. Faced with Japanese competitors that have more money to spend on research and development, and better-trained employees, even the largest and most well-endowed American firms have concluded that joining them is a wiser strategy than trying to beat them. Motorola—one of America's leading electronics companies—announced last November that it will link up with Toshiba to build a new chip-making factory in Sendai, Japan. Toshiba will supply the technology needed for the next generation of memory chips, and Motorola the technology for the next generation of logic chips (Motorola still has an edge in this category of chip technology, which instructs computers in how to solve problems). In the very same week, AT&T announced a new pact with Fujitsu, through which the two electronics giants will try to challenge IBM's dominance in computer systems. In both deals the American firms will be sharing their latest technology with their Japanese partners, and vice versa. If the underlying purpose of technonationalism is to keep American technology *here*, then presumably Motorola, AT&T, and all the other American electronics firms now sharing technology with their Japanese counterparts should be excluded—lest the Japanese gain instant access to our technology. But by this criterion few "American" firms—if any—would remain eligible.

These paradoxes suggest a practical truth: technonationalism cannot be superimposed upon institutions orga-

WHAT I REMEMBER THE WRITERS TELLING ME WHEN I WAS YOUNG

Look hard at the world, they said—
generously, if you can
manage that, but hard. To see
the extraordinary data, you
have to distance yourself a
little, utterly. Learn the
right words for the umpteen kinds
of trouble that you'll see,
avoiding elevated
generics like *misery*,
wretchedness. And find yourself
a like spectrum of exact
terms for joy, some of them
archaic, but all useful.

Sometimes when they spoke to me I
could feel their own purposes
gathering. Language, the dark-
haired woman said once, is like
water-color, it blots easily,
you've got to know what you're
after, and get it on quickly.
Everything gets watered
sooner or later with tears,
she said, your own or other
people's. The contrasts want to
run together and must not be
allowed to. They're what you
see with. Keep your word-hoard dry.

—William Meredith

nized on the basis of techno-globalism. Even if it were clearly in the national interest to try to keep America's technological learning at home, this goal is too sharply at odds with the premises on which our universities and corporations are based for it to provide a meaningful guide for public policy.

The third challenge that the principle of techno-nationalism faces goes even deeper: it is not in America's interest to bar foreigners from the fruits of our research and development. Technology is not like a scarce commodity, to be hoarded up. Its real value to us is only indirectly related to the gadgets it spawns at any given time. Nor does its value lie in information that can be conveyed through data, blueprints, or instructions. The value of technological learning is a certain kind of knowledge, founded in shared experience. It exists in people's heads. Thus the real worry is not that we are becoming dependent on Japan's high-tech gadgets but that we are losing the ability to transform new discoveries into gadgets nearly as efficiently as they can.

Most advances in technology build on what has come before—on prior technological experience. A dramatic discovery or groundbreaking invention may win a prize and bring fame to its progenitor. But such breakthroughs generally mean less to a nation's economic or military might than the speed and success with which they are absorbed, improved upon, and incorporated into new products and processes.

Scientists, engineers, and tinkerers of all sorts progress mostly by applying their understanding of technologies to new problems. They rearrange solutions in new ways, make incremental improvements in previous methods of doing things, and try out new variations on themes. Experience—the breadth and depth of familiarity with technology—is what determines the technological fecundity of a society. Mere information, such as specific data about the latest discovery or blueprints of a new invention, is relatively useless for designing future generations of technology. It may solve an immediate technological problem, but it does not provide experience for solving the next one. It supplies answers but it does not teach. Indeed, access to information may actually inhibit learning. As anyone knows who has tried to solve a puzzle with the answer book open, or tried to learn directions from here to there as a passenger rather than a driver, the ready availability of help can substitute for direct experience and thus make it more difficult to do it yourself the next time.

Our Real Interest

WHAT DOES IT MEAN, THEN, TO SPEAK OF AMERICA'S (or any nation's) technological prowess? Basic inventions do of course yield improvements, but these are easily disseminated as information, in blueprints, codes, and instructions—which reach Seoul almost as soon as they reach St. Louis. What's crucial is the extent of American engineers' and production workers' technological experience—their cumulative insights into how tech-

nologies work and how they can be adapted and improved—for only prior experience enables one to absorb the new technological learning and translate it into new experience.

The warnings now issuing from Washington that Japan might hold back certain high-tech gadgets mistakenly assumes that high-tech gadgets are like strategic raw materials—the kind of thing that one shouldn't have to depend on a foreign power to supply. But the analogy is inapt. These days our security depends less on ready access to blueprints or materials than on our collective ability to apply knowledge quickly to solving new problems. What needs to be stockpiled is not gadgets or things but experience and competence. As long as our engineers and production workers have accumulated experience in the technologies on which the Japanese gadgets are based, they can easily contrive replacements. Indeed, because high technologies evolve so quickly, both our military security and our commercial competitiveness turn on how quickly we can transform emerging technologies into the *next* generation of gadgets.

Here we come to the nub of our problem. Americans continue to lead the world in scientific discoveries and Nobel laureates. But we have had difficulty turning our basic inventions into streams of commercial products. We tend to get bogged down somewhere between the big breakthrough and its application. The Japanese, in contrast, are skilled at using the essential insight of a major discovery as the starting point in a continuing process of application and refinement. American scientists invented the solid-state transistor. Then, in 1953, Western Electric licensed the technology to Sony, whereupon Sony made dramatic improvements on it and launched a host of high-quality consumer electronics products. In 1968 Unimation, an American company, licensed Kawasaki Heavy Industries to make industrial robots; the nascent American robotics industry never quite got on its feet, because the Japanese quickly perfected the idea. The same pattern has held for video-cassette recorders, basic oxygen furnaces, microwave ovens, computerized machine tools, integrated circuits, and so on, up through supercomputers.

Why have the Japanese been so much more successful than we have in turning basic inventions into new products? Because Japanese engineers and production workers have been getting more technological experience than Americans. Given a choice between buying a particular high-tech component off the shelf from the Japanese or spending more money to build it from scratch, most American executives opt for the former. Building the component would enable American engineers and production workers to learn the technology from the inside and thus to improve upon it in the future. But American executives, it seems, cannot guarantee themselves any harvest from investing in the experience of their engineers and production workers. American engineers change jobs, on average, every two years. Their restlessness creates geographic centers of technology like Route 128 around Boston, and

Silicon Valley. This is good for the engineers but bad for the firms that have invested in them. Why go to the expense of giving them valuable experience when they'll just walk off with it? Japanese engineers and production workers, in contrast, tend to stay put for life. Investments in *their* technological competence are more certain to reap returns to the corporation that makes them.

Investments in experience cannot be protected like investments in real estate or machinery. Investors can claim and defend their stake in tangible assets but not in value that resides in people's minds. American executives cannot force their workers to stay with the firm. Patents are no answer when the learning is cumulative, taking the form of increased intuition and judgment, and yielding a stream of innovations over a number of years. As global competition has intensified, and profits have been squeezed, more and more American firms have chosen to buy from the Japanese or otherwise to link up with Japanese firms rather than build for themselves. Accordingly, investments in Americans' technological experience have declined. Even Route 128 and Silicon Valley are showing signs of faltering.

The answer is not to hold back our basic inventions from the Japanese. It is to help corporations profit from investments in the technological competence of Americans, and thus give American engineers and production workers experience in quickly turning basic inventions into first-class products. The nationality of the corporation's shareholders and directors—and whether the corporation goes by a Japanese or an American name—is irrelevant to the task. Today's corporations engage in research, fabrication, and production all over the globe. Their retained earnings are invested wherever they can get the highest return. Which nation's engineers and production workers will gain technological experience? Our interest lies in ensuring that Americans get at least a fair share.

One way to enhance the technological learning of the American work force is to subsidize corporations that undertake more of their complex production in America. The subsidy—which might take the form of subsidized loans, loan guarantees, or matching grants—should come from American taxpayers, because the benefits from this form of investment are indubitably social. Moreover, such inducements are justified whether the firm's name is Fujitsu or IBM or anything else. A Japanese company willing to give American workers experience in designing and producing the next generation of advanced computer chips is more valuable to us than an American company buying its advanced chips from Japan or setting up shop in Japan to do the same thing there.

Any suggestion that government should subsidize business is sure to be criticized by both conservatives and liberals. But it should be noted that America already expends significant sums on basic research—and, in its anxiety over competitiveness, is preparing to spend more. We also have been willing to subsidize business indirectly, through a wide array of devices (quotas on foreign imports, government procurement contracts, tax breaks, antitrust exemptions) that are often relatively covert and whose purposes are sometimes only tangentially related to the public interest. Far better to do it directly, and for a reason crucial to our continued economic prosperity and military security.

To be sure, the design and implementation of such technology subsidies would raise a host of difficult questions. How would we decide what kinds of technological experience are most valuable, and thus what kinds of complex production are worthy of being subsidized? How much subsidy is necessary, and for how long? Who decides, and how do we avoid the subsidy's becoming just another pork barrel? There are no easy or comforting answers to any of these questions. But consider the bureaucratic intrusiveness and dire political consequences of the alternative way of ensuring that our engineers and production workers get the technological experience they need: our government decides whether and under what circumstances American-based firms can buy Japanese gadgets, when and under what circumstances Japanese firms can buy American high-tech companies, how and under what circumstances American firms must guard their inventions from the Japanese, and precisely who can participate in research taking place in America.

Applying this logic to Fujitsu's proposed purchase of Fairchild suggests a response quite the opposite of that evinced by Washington. Fujitsu is one of the world's leaders in the production of complex memory chips. Making advanced memory chips is a skill that Americans need. Fairchild, as now constituted, is losing money and, unless it is bought by someone, will probably go bankrupt—losing whatever shared experience has already been accumulated by its engineers and production workers. Rather than trying to prevent Fujitsu from buying Fairchild, we should have invited Fujitsu into America to design and produce its most complex chips here. If Fujitsu needed to be coaxed to do so, we should have subsidized it.

Japanese companies like Fujitsu can help American workers discover how to transform research findings into practical innovations of all kinds. Our national policy goal should be to ensure that they do indeed teach us, and that we do in fact learn. □

***"The only thing new in the world
is the history you don't know."***

—Harry S. Truman



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Time spent rocking and taping can make a man appreciate gypsum wallboard, one of the most common fixtures of our lives and one of the most unjustly taken for granted

THE WALLS AROUND US

BY DAVID OWEN



AN IMPROVED HOME IS THE ONLY MAJOR CREATIVE work most of us will leave behind when we step into the void. How will future generations judge us? What will they think of the new medicine cabinet in the upstairs bathroom? Will they wonder—in the same way modern scholars attempt to sleuth out Michelangelo's thoughts about chiaroscuro—why we didn't buy a more expensive model? Philistine home-improvers, enamored of shortcuts and cheap solutions, don't care. But domestic artists do. We visit libraries, loiter in hardware stores, pore over tool catalogues, memorize how-to books, buy graph paper, consult experts, and dirty our hands in the dust of our dwellings. We feel the burden of both the future and the past and contemplate our role in the great conversa-

tion of mankind—home improvement for its own sake.

The first thing one needs before dedicating oneself to home improvement is a home that needs improvement. Regular readers of this magazine, or at any rate my parents, may recall that my wife and I own a very old house that, when we bought it, was filled with horrible wallpaper. This wallpaper—vast geometric schemes in clashing colors, floral fantasies, perching birds garlanded with fruit—had been put up with oceanic thoroughness by the previous owners, and much of our first year in residence was devoted to getting rid of it.

Getting rid of it turned out to be harder than we had anticipated. In the first place, our house's relationship with ugly wall coverings proved to have been not a passing fan-

cy but rather a marriage of some two centuries' duration. In one room an exploratory core sample revealed (from the surface inward) ugly wallpaper, oldish gypsum wallboard, ugly wallpaper, a thin veneer of plaster, ugly wallpaper, and a proper plaster wall.

In the second place, the previous owners' devotion to wallpaper considerably outran their skill at putting it up. We found several walls that had not been correctly prepared before being papered over and were thus unwilling to surrender the offending layer without surrendering much of themselves as well. In other places the wallpaper was serving less a decorative than a structural function—in fact, preventing the walls from tumbling down.

My wife and I, at times resembling one of those happy, industrious couples in cigarette advertisements, scraped wallpaper off as many walls as we could. Simply painting over the remaining wallpaper was considered but rejected; there were too many bumps, lumps, tears, holes, gaps, cracks, and crevices. Demolishing the walls and starting from scratch was a possibility, but a messy and expensive one. It was at this point in our thinking that we called in the pros.

WHAT TO DO WITH THE INTERIOR WALLS OF ONE'S dwelling is a problem of antique standing. For a surprisingly large stretch of human history a frequent response to this problem has been plaster. The pharaohs' toilers heated crumbled gypsum, mixed it with water, and spread the resulting paste over rough walls made of stone, brick, mud, or reeds.

A wide variety of ancient peoples did essentially the same thing, with gypsum, lime, clay, and other materials. In doing so they anticipated with their usual uncanniness the way we do things today (except that, for the most part, we don't do this thing today, the plasterer's art having gone the way of the other arts—but I get ahead of myself).

From the time of the Egyptians onward, plaster has been recognized to be a remarkable substance, and indeed it is one: as richly smooth and pliant as the material Freud called the child's first gift, yet clean, white, pristine—primal slop bleached of unpleasant associations. When properly prepared, it is sturdy enough to mock the eons, yet its supple plasticity endears it to the artist, who, with a delight presumably not unlike that of the Shaper of the original clay, et cetera, et cetera.

Plaster, like almost everything else, reached its aesthetic zenith during the Renaissance. Exacting craftsmen filled magnificent rooms with moldings, reliefs, and other ornaments, achieving a degree of interior decoration seldom aspired to nowadays beyond the city limits of Las Vegas. When Michelangelo sprawled on his back for four years beneath the ceiling of the Sistine Chapel, it was onto wet plaster (*fresco* means "fresh," the condition in which the surface to be frescoed must be) that he painted his astonishing vision.

Plaster has wholly utilitarian virtues as well. It deters ro-

dents and is of no interest to termites. It is fire-resistant. A modern wall made with gypsum wallboard—basically, two pieces of heavy paper with a layer of plaster in between—can hold its own against flames for about an hour. Plaster walls were viewed, correctly, as one solution to the fires that regularly blackened London for so many centuries. "Bild up an hous of fyne lyme playster to keep away the flaymes" was the wording, perhaps, of some medieval edict.

Before a house can have walls, it needs a frame. Early American houses, including my own, were framed with a small number of massive, hand-hewn timbers held together with fancy joints and wooden pegs. The vertical members, called posts, stood at the four corners and, depending on the size of the house, at key points in between. Horizontal members called girts and plates connected the posts at ceiling height. In the spaces between the posts, like bars in a cage, were smaller vertical members called studs. The studs bore little or none of the weight of the house; their function was to provide a skeleton to which the inner and outer coverings could be attached.

Modern houses are framed with larger numbers of smaller pieces of wood (or, occasionally, steel). Builders eventually realized that massive posts were unnecessary and that a house could be held up by studs alone. The standard modern stud is a piece of wood called a two-by-four. True to the spirit of the times, the cross-section of a two-by-four measures one and a half by three and a half inches. In addition to holding up the house, modern studs do what old-fashioned studs did: provide a skeleton for inner and outer coverings.

In the earliest days of the American colonies the inner coverings of houses were simple wood planks. These were nailed directly to the studs. Soon, though, plaster became the covering of choice for most walls. Until the late nineteenth century or so, plaster in American houses was typically made of lime, sand, and the hair of animals. Sand and animal hair are familiar to all; lime is calcium oxide. It is produced by crushing and then calcining (by heating) limestone, seashells, Tums, or some other rich source of calcium carbonate. Freshly calcined lime is called quicklime; pouring water into it causes a hot, nasty chemical reaction. After this nasty reaction has taken place, quicklime is known as slaked, or hydrated, lime. It is from this that lime plaster is usually made.

A similar substance is calcium sulfate, or gypsum, whose use as a building material is reputed to have been introduced to America in 1785 by Benjamin Franklin. Franklin had learned about it in France. Gypsum occurs naturally in many forms, including satin spar and alabaster. As a lad, I had a piece of satin spar in one of those boxed rock collections sold at souvenir stands in national parks. As hard as it is to believe, I think my mother later threw it out. Wherever it is today, that little chunk of satin spar, like all gypsum, contains a great deal of water: roughly 50 percent by volume, not including the dab of amber glue that held it in the box. Crushing and calcining drives off most of this wa-

ter, yielding the remarkably useful material known as plaster of paris. Gypsum wall plaster is usually made of plaster of paris and additives that keep it from setting too quickly. When water is mixed back in, the gypsum's original crystalline structure re-forms. The water content of hardened gypsum plaster is about the same as that of gypsum rock. It is this internal water that accounts for gypsum plaster's resistance to fire. For roughly a hundred years now, most plaster has been made of gypsum.

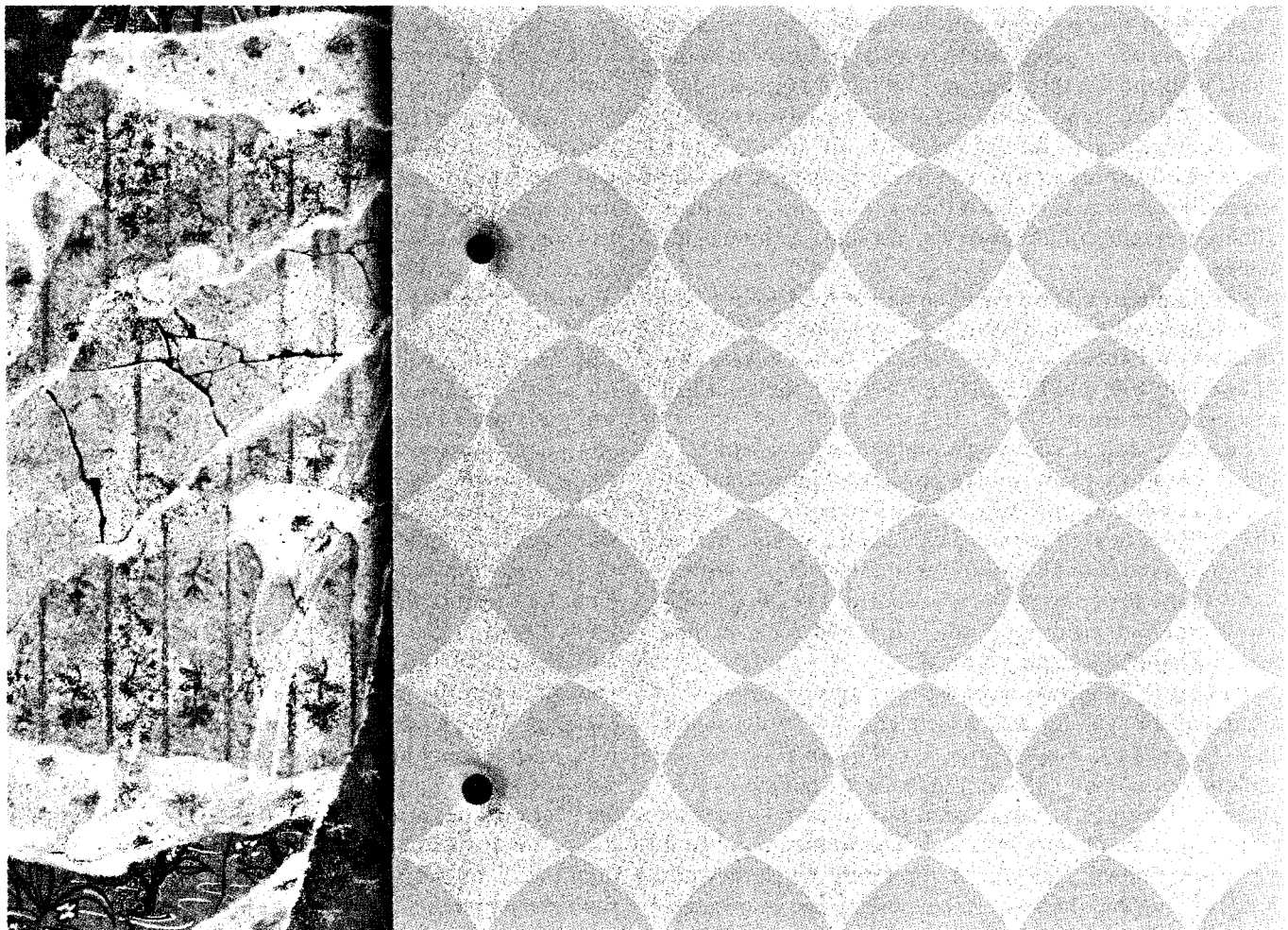
Plaster, like cake frosting, needs to be spread on something. The supporting surface onto which plaster is spread is called lath. From Colonial times until well into this century lath was made of wood. My house has two kinds of lath: hand-split wood strips from the late eighteenth century and sawn strips from the nineteenth. Both kinds were nailed horizontally across the studs with small spaces between the strips. Plaster was spread over the lath.

Shortly before the dawn of the twentieth century a dreamer named Augustine Sackett sandwiched three thin layers of plaster of paris with four layers of heavy paper to produce Sackett Plaster Board. Each board was thirty-six inches long, thirty-two inches wide, and a quarter-inch thick. The quality of the early product was such that it could be used for very little. It was ugly, heavy, and weak. However, it was fast. Before Sackett's invention walls had

usually consisted of lath and plaster. After Sackett's invention they still usually consisted of this, but sometimes a builder would save himself a good deal of trouble by nailing plaster boards directly to the studs, covering up the seams and nailheads with a plaster-like material, and letting it go at that.

In 1909 Sackett (whose business by then spanned the globe from Garbutt, New York, to Fort Dodge, Iowa) sold out to the United States Gypsum Company, a mining and manufacturing concern that had been founded seven years before. The company refined Sackett's invention—for example, eliminating the two internal paper layers. As quality improved, gypsum wallboard became increasingly popular as an inexpensive substitute for lath and plaster. In 1917 the company introduced the product that has been the mainstay of its business ever since, a much improved gypsum panel called Sheetrock. In the most common of its many configurations, a Sheetrock panel is eight feet long, four feet wide, and half an inch thick. If you're like a lot of people, you can touch some from where you're sitting right now.

Along with Kleenex, Kitty Litter, and Windbreaker, Sheetrock is, I think, one of the world's outstanding trade names. People tend to use it, improperly, as a generic term for gypsum wallboard. But in proper usage it applies only



to various products of USG Corporation, as the company is now known.

USG is the biggest manufacturer of gypsum wallboard in the world. It shipped seven billion square feet of it in this country last year. Seven billion square feet works out to 160,700 acres, 65,000 hectares, or 26 million square rods. That's a lot. Still, two thirds of all the gypsum wallboard shipped in America in 1986 was made by other companies. The second biggest producer, with just over five billion square feet, was National Gypsum Company, which makes Gold Bond brand wallboard.

WHEN MY WIFE AND I CALLED IN A PROFESSIONAL builder to deal with our remaining wallpaper problem, he suggested burying it beneath a layer of gypsum wallboard. The wallboard, he said, could be attached directly to the existing walls. This idea was attractive for several reasons. First, it would leave the old walls intact but out of sight. Second, putting new walls over old was clearly a tradition in our house. Third, it would be relatively inexpensive.

Gypsum wallboard, whatever its brand name, has a lowly reputation. When people complain about how much worse things are nowadays, wallboard is one of the things they often complain about. You never heard about people putting their fists through walls before Augustine Sackett came along, these people will say while poking you in the chest with their stubby fingers. Wallboard is usually less durable than lath and plaster. It's also cheap (about twenty-five cents a square foot at my hardware store), which makes it irresistibly attractive to the sort of people who are irresistibly attracted to cheap things. Since this describes almost everyone, almost everyone has at least a little in his house.

Still, wallboard doesn't have to be installed poorly. Nor does it have to be thin. Indeed, when you attach it to a wall that's already there, it makes the wall thicker than it was before. My wife and I decided to start with the front hall and the living room.

Standing around watching workmen work would be a pretty good job, many people probably think. When my father retired from business, he embarked on a new career that consists to a great extent of watching people fix the things that break in his house. When the workmen arrived at my house to put up the new wallboard, I decided to follow in the old man's footsteps and spend a lot of time standing around watching them do it.

Laminating wallboard over existing walls is made somewhat difficult by things that stick out from the walls: moldings, baseboards, window trim, and the like. The cornice molding in our hall and living room, for example, was in the way. Fortunately, it had been put up by the previous owners, not by Thomas Jefferson. The workmen pulled it down and threw it into their dump truck, which they enjoyed driving into the yard. If the molding had been something special, they would have saved it and put it back up

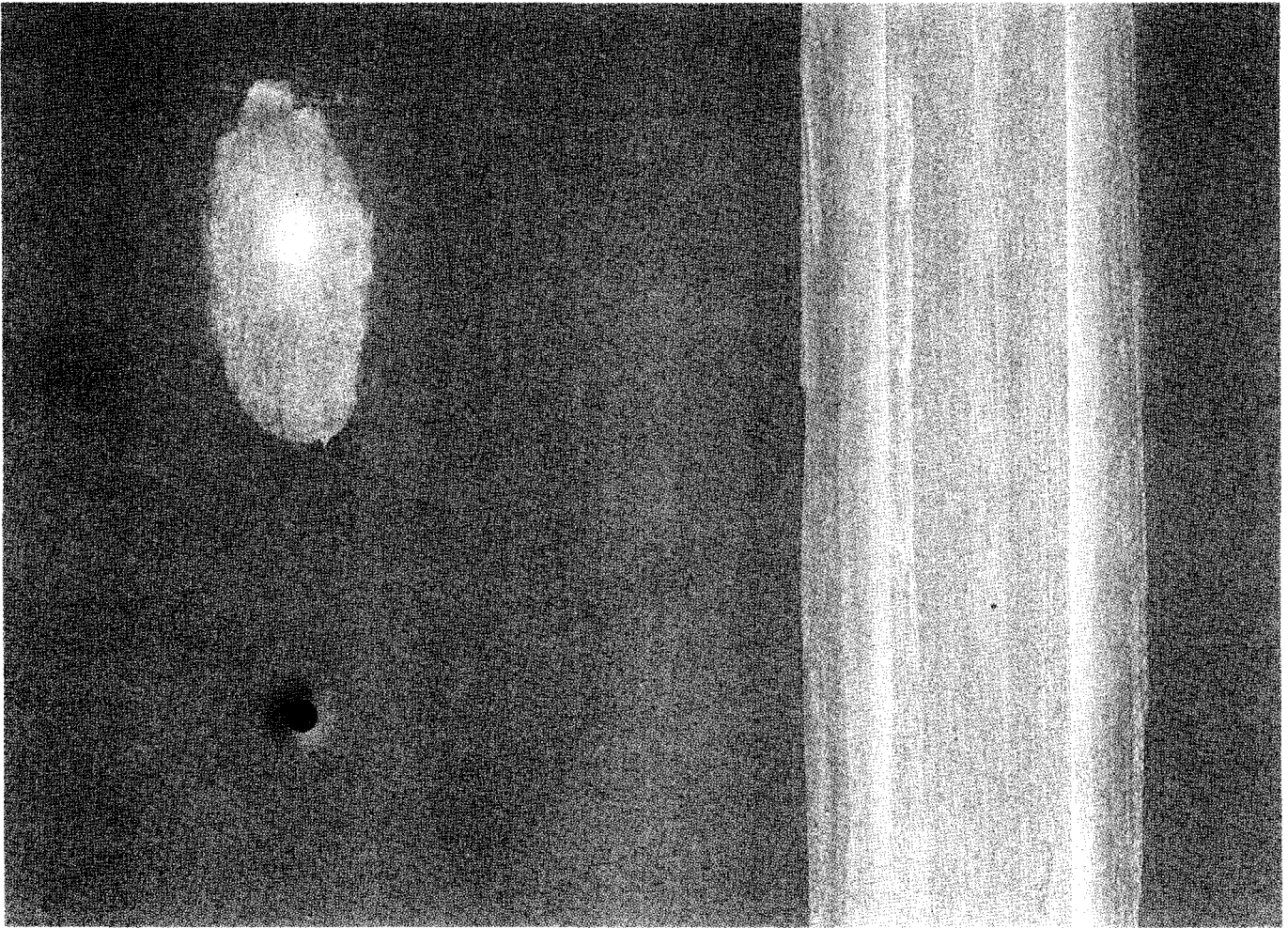
later, after trimming it to fit walls that would be slightly closer together than they had been before. Instead, when they were finished, they put up new molding that gratifyingly looked older than the old molding.

The windows in our living room and the principal doorways in the hall are old and nice. Taking them down was out of the question. Fortunately, the casings around them stuck out an inch and a half from the old plaster walls. Likewise with the top of some old raised-panel wainscoting along one wall. Reducing the protrusion by half an inch made no difference. The baseboards in the hall were ordinary modern pine boards three quarters of an inch thick. Setting wallboard above them cut the protrusion to a quarter of an inch and actually made them look more in keeping with the age of the house: Colonial builders used to nail baseboards to the framing and then apply the wall plaster flush with them.

Wallboard is heavier than I had thought. A panel eight feet by four feet by a half inch weighs a bit under fifty-eight pounds—about as much as a healthy third-grader. Despite its heft, though, it's remarkably easy to work with. You don't have to saw wallboard (although you can). If you score it with a utility knife, you can break it cleanly with your bare hands, like Bruce Lee. This is what the pros do.

For most of its history gypsum wallboard has been put up with nails. There are several specialized kinds. Some are coated with a cement that bonds to wood. Others have little rings around their shafts that do the same thing. The workmen in my house used cement-coated nails. They also used some screws. Screws are more expensive, but they hold better and you don't need as many. Screws eliminate one of the most common problems with wallboard: nail pops. A nail pop is, to use technical terms, a nail that has popped. A standard two-by-four stud can have a water content of well over 25 percent. Over time this usually drops to 12 to 14 percent, depending on the house's climate. As it does, the stud shrinks away from the wallboard nailed to it. The nails, though, stay put. Everything looks fine until someone leans against the wall. Pop! The round nailheads poke through the surface, looking like buttons you might push to open secret passageways. Screws, in contrast, follow the wood as it shrinks, taking the wallboard with them. (The framing in our house is so old that shrinkage isn't a problem.)

The most time-consuming part of any wallboard installation is covering up the heads of the fasteners and the joints between the panels. Nails and screws are driven slightly below the surface of wallboard panels—not enough to tear the paper but enough to create a slight depression. This depression (called a dimple in the trade) is filled with three or four applications of a plaster-like material called joint compound or mud. Repeated applications are necessary because joint compound shrinks slightly as it dries. Tossing around a little casual banter about “mudding the dimples” is a good way to make a wallboard installer think you're out of your mind (“spotting the nails” is what pros usually say).



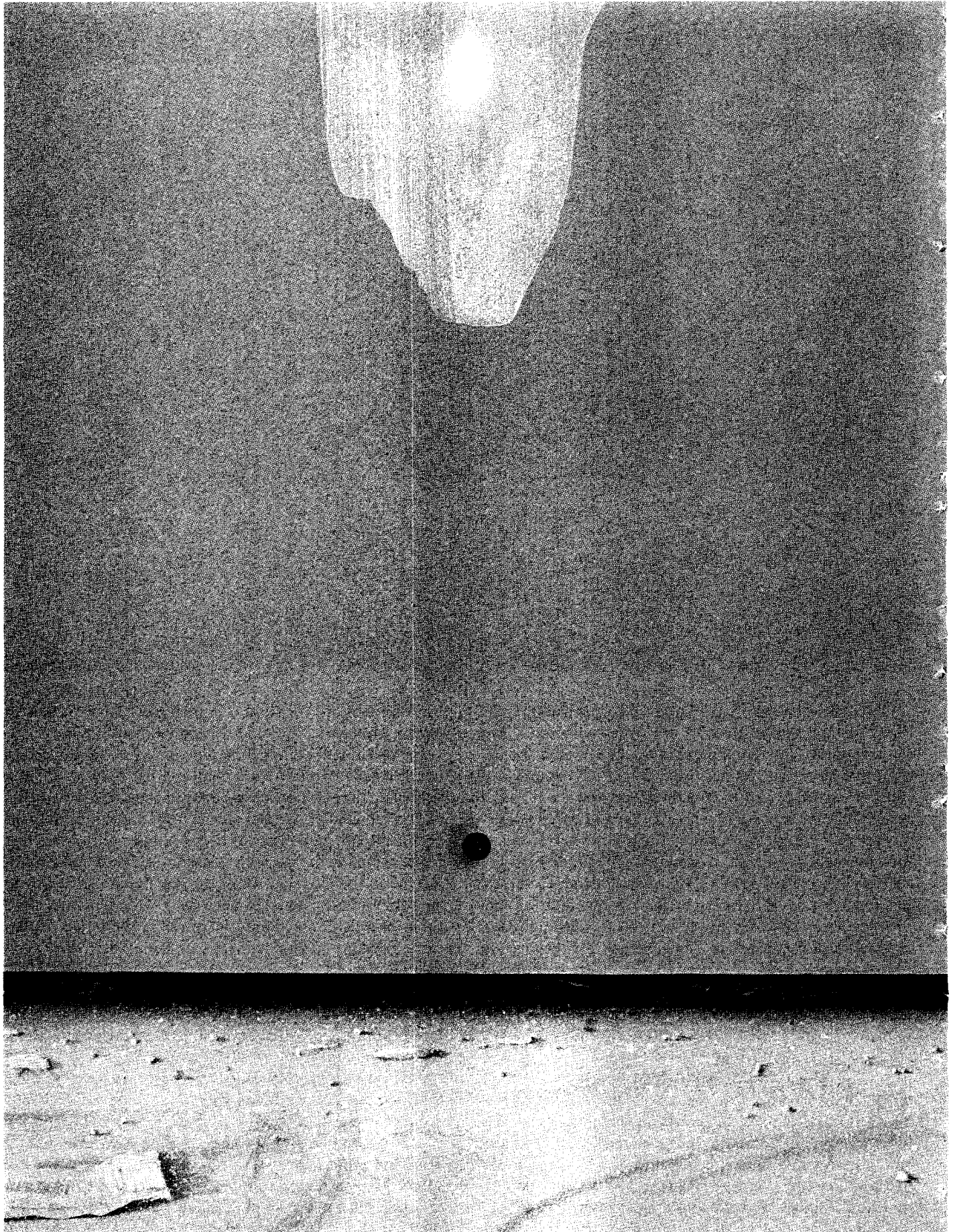
Joints between panels are harder to cover than dimples. First the joints are “buttered,” or covered with a thin layer of compound. The compound is applied with a spatula-like knife about four inches wide. While this compound is still wet, a strip of two-inch-wide paper tape is embedded in it. Joint tape reinforces joints. In the old days it was always perforated, to facilitate bonding; nowadays it usually isn’t. Instead, its surface is mechanically roughened, giving it a slightly hairy texture. Once embedded, the tape is covered with several layers of joint compound, applied with successively wider knives or trowels. Each new layer of compound is “feathered,” or squished flat, beyond the edges of the previous one, creating a smooth, continuous surface. After the final layer has dried, the compound is sanded, creating a blizzard of white dust that takes several years to vacuum up.

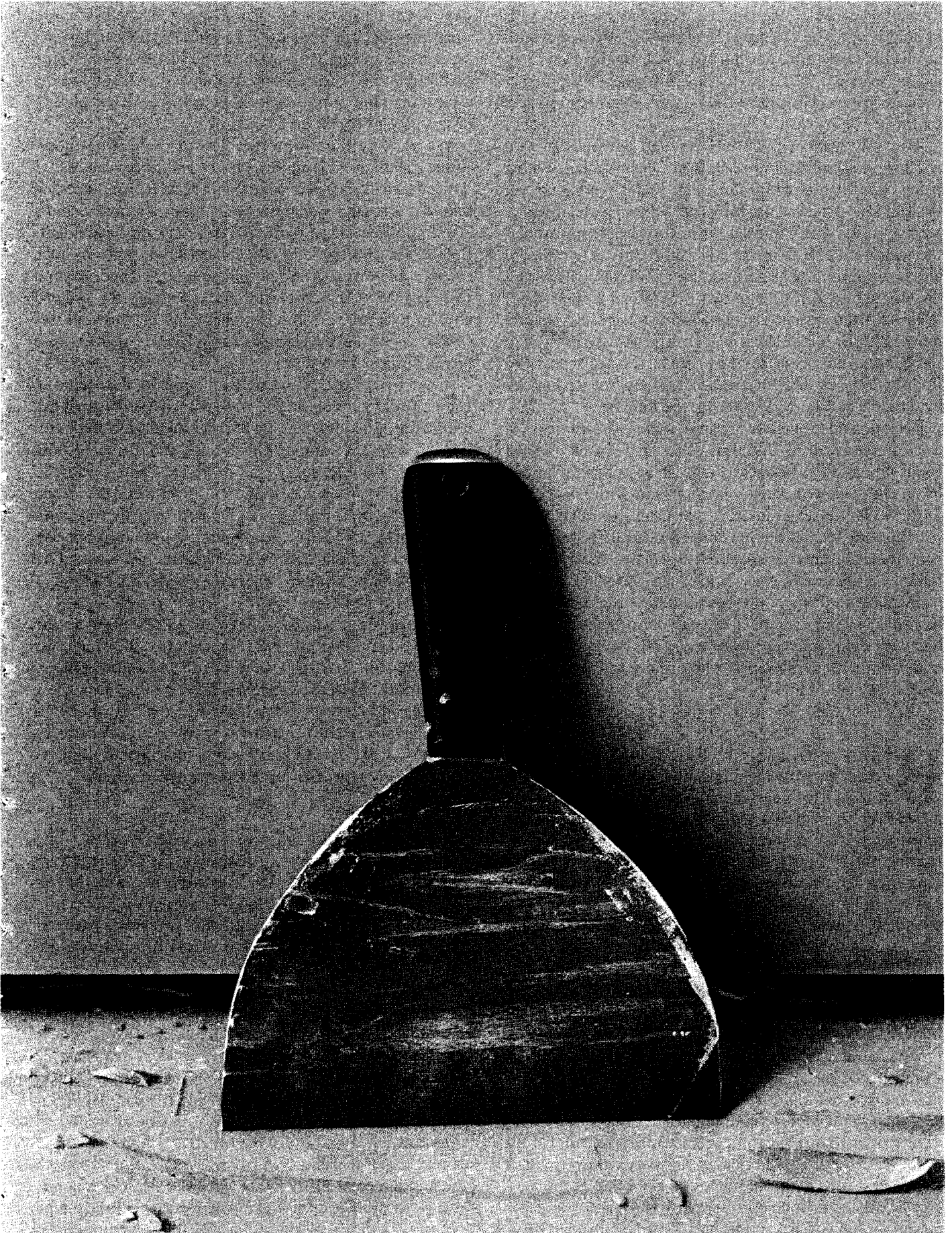
WALLBOARD INSTALLATION IN NEW CONSTRUCTION is seldom done as slowly and carefully as it was at my house. On big jobs payment is usually based on the number of panels, which creates a powerful incentive to be sloppy. Once it occurs to you to look, you can spot bad wallboard installations almost anywhere. When I find myself waiting in someone’s office now, I pass the

time by looking for sloppy taping jobs. Lumps, trowel marks, bubbles in the mud: they aren’t hard to find.

Instead of embedding joint tape by hand, big-time wallboard installers often use a long tubular device, called a bazooka, that dispenses tape and mud simultaneously. (There’s a similar, smaller device called a banjo.) This is very fast, but it doesn’t always produce terrific results. Some tapers make do with just two layers of compound, instead of three or four. Ceilings in many new houses and apartments are given the once-over with a bazooka and then sprayed with a gloppy-textured finish known as popcorn. Popcorn ceilings are fast, cheap, and, I think, extremely ugly. If you’ve ever hung by your ankles above a big rectangular vat of cottage cheese, you have a pretty good idea of what it’s like to look up at one. Popcorn ceilings save a lot of time, though, and some people think they look sharp.

Fast isn’t necessarily bad. Even first-rate rockers (short for Sheetrockers) work at a pace that can give an average do-it-yourselfer the vapors. I spent a very cold morning watching two deft rockers named Billy and Spanky put up walls and ceilings in a brand-new house not far from where I live. First they stood around smoking cigarettes in front of a kerosene heater. Then, when they had warmed up, they cut about a foot off a twelve-foot panel, hoisted it to





the ceiling of the dining room, and banged in enough nails to hold it up. Then Spanky "screwed off" the panel with an electric screw gun, putting in a screw roughly every foot along each joist. While he did this, Billy measured and cut the next panel. The entire ceiling took about ten minutes to finish.

The walls went even faster. The front wall had a picture window in the middle of it. Billy and Spanky nailed a big panel over the top part of the entire wall, covering up half the window. Then, while Billy cut the next panel, Spanky used a router with a special bit to cut an opening around the window. (The recommended procedure is to measure and cut openings before hanging panels, but Billy and Spanky got good results in less time doing it their way.) When Billy trimmed a panel, he was thinking several moves ahead, like a chess player: a window cutout from the dining-room wall might become the ceiling of the front-hall closet; the fourteen-foot panels stacked in the living room would work better in the kitchen.

Rocking and taping are separate trades. Practitioners of each are scornful of the other. Billy and Spanky talked about tapers the way doctors talk about dentists. Tapers, meanwhile, view rockers as brawny louts with no sense of artistry. Of course, each crew that passes through a construction site blames the previous crew for all its problems: painters curse tapers, tapers curse rockers, rockers curse framers. Billy and Spanky didn't have too much to complain about on this job, they said, because the framing was basically straight (where it wasn't, they whacked it into line with their wallboard hammers). The worst jobs, Billy said, are in condominiums, where the framing is almost always way out of line.

BY THE TIME I WENT TO WATCH BILLY AND SPANKY, I'd done a little rocking and taping of my own. One of the nice things about gypsum wallboard, as opposed to genuine plaster, is that an amateur can handle it. I prepared myself by watching the workmen in my house, reading all the home-repair books I could find, and running up a big tab at the hardware store. My first project was repairing a badly deteriorated plaster wall in the upstairs hall. Measuring, trimming, and nailing up two eight-foot panels took me most of an afternoon. (Billy and Spanky put up from 80 to 90 twelve-foot panels in an average workday.) Taping was intimidating but not impossible; I got a little jaunty with the joint compound, but sanding removes a multitude of sins.

My second wallboard project was in the playroom. I did a pretty good job. Indeed, I would be unashamed to display my playroom joints beside the joints of almost anyone. The same goes for my dimples.

The only real setback I encountered involved a wallboard screw that made a funny noise as I drove it in. I looked at it for a while and then unscrewed it. A thin column of water streamed horrifyingly through the hole. Like most plumbing disasters, this one occurred late on a Satur-

day night. I had to shut off the water in the basement, drain the line, and rip a big hole in the wall I had just put up. I made a temporary patch in the pierced copper pipe by dipping the wallboard screw in epoxy glue and driving it back in. This, surprisingly, kept us dry until the plumber was able to come, on Tuesday.

My next wallboard project was in the dining room. While patching a crumbling plaster wall there one day, I noticed a small splash of color behind the lath and decided to find out what it was. Using a hammer, a crowbar, and a saw, I knocked a hole in the wall and stuck my head into it. Behind the dining-room wall, I discovered, was a six-inch airspace filled with extremely old-smelling air and, beyond that, another lath-and-plaster wall, perhaps the original one. In keeping with the rest of the house, this wall was covered with ugly wallpaper (an off-white print with a brown border of flowers).

A few weeks later, burning with curiosity, I decided to get a better look behind the wall. I knocked down all the crumbling plaster on a six-foot-wide section between a window and a corner. The plaster was made of lime and sand; I could see wisps of animal hair along the broken edges when I held pieces up to the light. Then I pulled down all the lath, which had been put up with little square nails. The studs were two-inch-thick oak slabs, one of them more than eight inches wide. The studs had bark on their edges: they were thick slices of tree limbs.

And then there was the older wall. In places where the plaster had crumbled, I could see the old lath, which was hand-split oak. The nails were handmade and had huge, lumpy heads. I removed samples of everything, took a few pictures, and signed "George Washington" in pencil on the wallpaper. Then I closed the opening with Sheetrock. The studs were so hard that I had to recharge my cordless electric screw gun after driving just a dozen screws.

MOST OF THE HOME-IMPROVEMENT GUIDES I'VE seen aren't entirely reliable on the subject of gypsum wallboard. The *Reader's Digest Complete Do-it-yourself Manual* appears to advocate an unnecessarily sloppy taping technique; the disembodied hands in the illustrative photographs are probably still trying to sand those lumpy blobs. (A really good taping job requires very little sanding.) The *Walls and Ceilings* volume in Time-Life's useful home-improvement series is better, but several important steps are more implied than explained. A newer book, *This Old House Guide to Building and Remodeling Materials*, a spinoff from the popular television series, unfortunately gives some very bad advice about taping: it approves of using a new fiber-glass mesh tape on wallboard joints instead of traditional paper tape. The mesh tape is indeed easier to handle, but it has next to no strength when used with ordinary joint compound. Wallboard joints taped with mesh tend to crack when stressed. (Mesh tape does work with real plaster, which has different properties.

It is also useful in patching holes and cracks that don't come under stress.)

I learned about the problem with mesh tape and joint compound from Marty Cook, an executive at USG. Cook has been with the company since 1950 and knows almost everything there is to know about wallboard. He is someone to whom you can say, "Marty, let's talk about type-W bugle-head wallboard screws for a while." I did, and we talked about them for a while. We also talked about joint compound. There are a number of different kinds, including taping, topping, and all-purpose. Taping compound bonds powerfully and is best for embedding tape; topping compound is weaker but shrinks less and is easier to sand, and so is preferred for the final coat; all-purpose is a compromise between the two. "You can use taping for topping, but not topping for taping," Cook said. Hardware stores usually carry all-purpose.

All-purpose joint compound is terrific stuff. I've used it to patch cracked plaster, to resurface an ugly ceiling, and to make little pretend animal cookies for my daughter. Joint compound isn't as strong as plaster, but it's a lot easier to handle. (You can toughen it up for patching, I've heard, by mixing in a little plaster of paris.) I have some friends who used joint compound to make a good imitation of an old textured-plaster wall. They just slopped it on bare wallboard and spread it around with plastering trowels. Another good thing about joint compound: if you buy it pre-mixed in the five-gallon size, you have a swell plastic bucket when you're finished.

Mostly, Cook and I talked about wallboard. For as long as he's been in the business, he said, the walls in expensive new houses have been the same as the walls in inexpensive ones: half-inch wallboard put up with nails. In recent years, though, builders have been clamoring for something fancier to use in expensive houses.

"This began to happen several years ago, at the National Association of Home Builders meeting in Dallas," Cook said. "Builders were coming up to me and saying, 'Thirty years ago we were building twenty-thousand-dollar houses and using half-inch nailed-on; now we're building three-hundred-thousand-dollar houses and we're still using half-inch nailed-on. People are buying thirty-thousand-dollar bathrooms and fifty-thousand-dollar kitchens, and we're still messing around with half-inch nailed-on!'" When Cook heard this, he said, "Hell, we had an answer to that thirty years ago, but you didn't pay attention because you wouldn't pay a nickel more for it!"

The answer thirty years ago was to install a double layer of wallboard. This is still a good technique; it's what I did when I closed up the big hole I had made in my dining-room wall. The first layer, installed vertically, is glued to the framing with construction adhesive (Liquid Nails is one popular brand) and then nailed or screwed. The second layer, installed horizontally, is bonded to the first with blobs or beads of taping or all-purpose joint compound (other adhesives can be used, but joint compound costs

least and works best). Nails or screws are used only along the edges of the panels, which are later taped. Double-layer installation eliminates nail pops and can produce walls that are anywhere from three quarters of an inch to an inch and a quarter thick—the kind of walls you can really pound your fists on.

More recently USG has begun promoting two new techniques also aimed at the higher end of the housing market. In one, five-eighths-inch-thick Sheetrock panels are glued to the framing and screwed only along the edges. In the other new technique special wallboard-sized backing panels are glued and screwed, and then covered entirely with a very thin plaster veneer. USG says that veneer plaster is about 16 percent more expensive, on average, than traditional half-inch nailed-on. This could be good news or bad news, depending on what you think plaster is worth. Veneer plaster does have the advantage of being very fast: a house can be veneer-plastered in a single day and be ready for painting after two days.

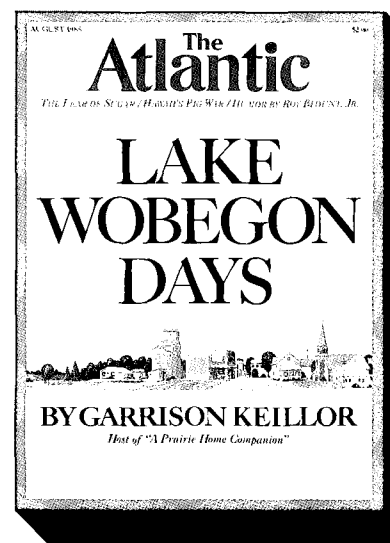
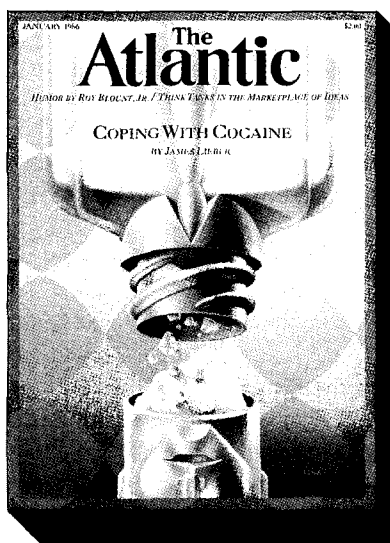
OF COURSE, IT'S ALSO STILL POSSIBLE TO PUT UP genuine plaster walls. Nowadays the plaster is applied not to wood lath (which went out of use forty or fifty years ago) but to smallish Sheetrock-like panels known as gypsum lath. This is seldom done in houses, though. It's expensive, and skilled plasterers are increasingly hard to find. Historical restorations and buildings that get a lot of wear and tear, such as hospitals and schools, are among the few remaining outlets for plaster work.

Should we be sad that wallboard has eclipsed real plaster? I don't think so. For one thing, many fewer people would be able to afford their own houses if we still did everything the old-fashioned way. For another thing, the old plaster walls that people rhapsodize about weren't always so great. They cracked and crumbled and pulled away from their lath. People who own old houses are susceptible to a silly form of reverse snobbery in which ancient plaster is cherished *because* of its imperfections. Maybe nail pops will someday be exalted in the same way.

The problem with modern walls is less the materials than the spirit in which they're used. In most new construction the walls aren't given much thought. Architects and their clients worry more about where walls will be placed than about what they'll be made of. Someone who really cares about well-made walls can still have them today. The double-layer Sheetrock patch in my dining room is more durable than the plaster it replaced.

My dining-room patch is also something more. It's one of my own small contributions to an artistic effort that, with varying results, has been going on in my house for more than two hundred years. Many hands, one tradition. When I finished the job, I stood beside it proudly with a beer in my hand and a dopey look on my face. Then I started to look for something else to improve. □

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FASHION

THE ANNALS OF GLORY

BY HOLLY BRUBACH

THE BEST-DRESSED LIST, decided annually by designers, editors, stylists, and other people who work in the fashion industry, has been around in one form or another for more than fifty years now. The ballot, which last year ran to 131 names, is still compiled by Eleanor Lambert, a New York publicist who took over the tradition in 1940, when the Paris couture houses discontinued the practice of annually listing their most fashionable clients. Write-in candidates are allowed but, as in most elections, stand a meager chance of winning.

The choices of the 1,200 or so people who vote have generally been a mixture of socialites (Daisy Fellowes, Mrs. Harrison Williams, Babe Paley, Nan Kempner, Pat Buckley), royalty (Queen Elizabeth II, Princess Caroline of Monaco, Queen Sirikit of Thailand), politicians' wives (Mrs. Dwight D. Eisenhower, Mrs. Henry Kissinger, Mrs. Ronald Reagan, Mme. Chiang Kai-shek), and actresses (Marlene Dietrich, Sophia Loren, Catherine Deneuve, Mary Tyler Moore, Diane Keaton). In 1965 Anne and Charlotte Ford, daughters of Henry Ford II, were listed as one entry, because, Lambert explained, their styles were identical. In 1971 Twiggy and Cher tied for tenth place. Audrey Hepburn, Grace Kelly, and C. Z. Guest all made the list before their thirtieth birthdays.

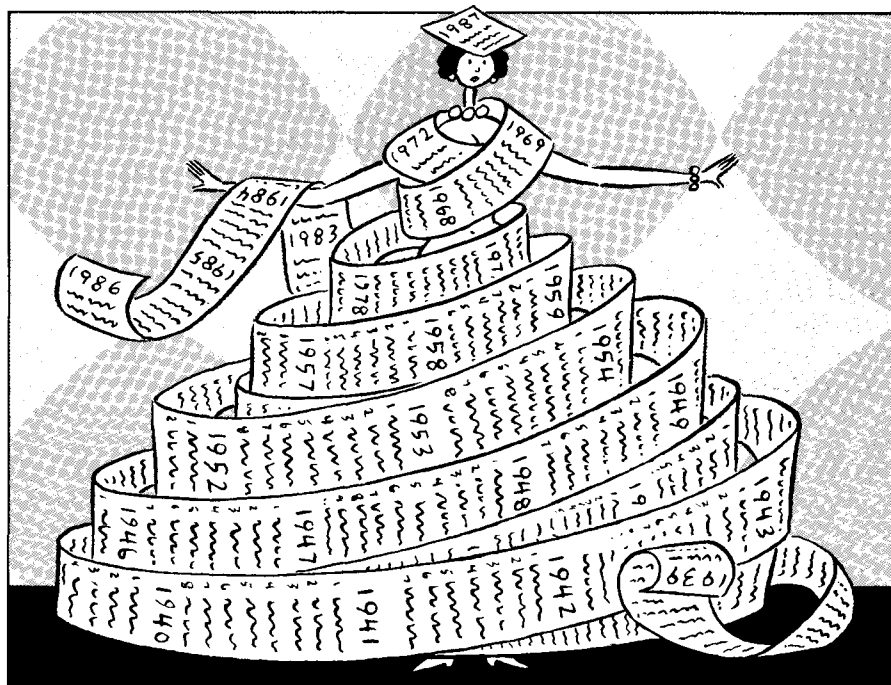
Over time the list has grown more crowded and more complicated: women who have been named to it four times are now usually removed from the ballot and canonized in the Best-Dressed Hall of Fame; "fashion professionals" are grouped together, on a list of their own. In 1968 Lambert added a men's list and, skipping the preliminaries, a men's Hall of Fame, enshrining Fred Astaire and the Duke of Windsor right off.

How seriously all of this is taken depends on who is talking: some people boycott the list on principle, refusing to vote; some read it with envy and others with mild amusement; some make being on it their goal; and some, of course, pay it no attention whatsoever. In any

case, over the years the list has served as a benchmark for fashion—fashion not as it walks down the runway but as it walks down the avenue, as practiced by the women who are its best-known exemplars. The current exhibition at the Museum of the City of New York, called "The Best of the Best-Dressed List: 1934–1984" (on view through May 14), brings together outfits originally worn by thirteen of the women who have been named to the Best-Dressed Hall of Fame, from the Duchess of Windsor (formerly Mrs. Ernest Simpson) and the Countess Bismarck (formerly Mrs. Harrison Williams) to Jacqueline Kennedy, Diana Vreeland, and Paloma Picasso. The show would have to be much more extensive to qualify as a retrospective of the Best-Dressed List or of fashion itself. As it is, JoAnne Olian, the curator, and Phyllis Magidson, her associate, have managed neatly to establish each of the women as a distinct personality on the basis of no more than a few outfits apiece. But seen all together, the clothes here raise more questions about what has become of fashion than they answer about what fashion used to be.

TALKING ABOUT STYLE on the videotape that accompanies the exhibition, Eleanor Lambert says, "I think it's a talent." Paloma Picasso says, "I don't think money has anything to do with it," and theorizes that a budget is a good influence, because it forces a woman to define her style, whereas with unlimited funds she can be indiscriminate and buy everything. Alas, perhaps, no smartly turned-out shopgirl in Paris or resourceful art-school student in New York will ever rate a place on the Best-Dressed List, no matter how original her style, for the simple reason that the list is still—implicitly if not overtly—a publicity organ. "The list is entirely free of commercial involvement," Lambert says in a letter to voters on the front of the latest ballot—meaning, presumably, that it is not aligned with any designer, store, or publication. Still, by casting an annual spotlight on women who wear clothes by established designers and wear them well, the list promotes fashion's cause. In return, a good number of the women who are perennial candidates are granted a 50 percent "celebrity discount" at the couture houses.

Women who devote themselves to fashion full time are, if not a dying breed, surely a dwindling one. Stories about Mrs. Paul Mellon, who had trompe l'oeil shadows painted on the floor of her New York apartment to give the impression that the sun was constantly streaming in through the windows, Elsie de Wolfe, who kept an extra pair of gloves to wear in the car so as not to soil the



ones she would wear when she arrived at her destination, and the Duchess of Windsor, who had the soles of her shoes polished daily, all strike us as slightly quaint. Such an avid preoccupation with matters of style seems to most of us an unaffordable luxury: free of the worries that beset the common folk, the Best-Dressed ladies spend their days pondering questions of personal aesthetics.

In recent years the Best-Dressed List has broadened its scope—some would say lowered its standards. In 1984, for example, Michael Jackson, Grace Jones, Madonna, Prince, and Tina Turner were granted honorable mentions of sorts, cited as “impact personalities influencing adolescent dress.” The excitement they engendered in fashion was too great to go unremarked; in fact, it eclipsed what was happening at the time in the couture. The names on last year’s ballot were more predictable, but every now and then there are signs that fashion is scrambling to keep up with the times and that the list is scrambling with it.

One looks at this exhibition and wonders whether women will ever again lavish so much effort on their appearance. There are, of course, plenty of fashion enthusiasts who continue to patronize the couture, who strategically plan their wardrobes and employ a household staff to maintain them. As for many of the rest of us who love fashion no less, we probably wouldn’t make it our life’s work, even given the choice. Still, we can appreciate the eloquence, the height of expression, that these women attained in their clothes.

OF THE THIRTY-EIGHT outfits in this exhibition, six were designed by Mainbocher—more than were designed by any other designer represented. At a time when other designers of his era have been fondly recalled, Mainbocher has been passed over. No recent collection has memorialized his work, though there have been countless tributes to Coco Chanel and Claire McCardell, his contemporaries.

Main Bocher—the first name pronounced as in English, the last as in German—was born in Chicago in 1890; he died eleven years ago in Munich. His career took him to Paris, where he worked as an illustrator for *Harper’s Bazaar* and later as the editor of French *Vogue* until 1930, when, as Mainbocher (pronounced as in French), he opened his own couture house on the Avenue Georges V. His friends still called him

Main, pronounced as before. But there was nothing down-home about his house, which seems in some ways to have been more like a club than a business, situated as it was on the third floor, up above the street, and with new customers being admitted only on referral by existing ones. Mainbocher’s clientele was not much affected by the Depression, but his style surely was. Thinking it vulgar for women to be flaunting their money at a time when so many people were destitute, he created clothes that were discreetly opulent—so discreetly, in fact, that one often has to look twice to see their opulence, evident primarily in the quality of the fabric and the meticulous cut. Mainbocher refused to allow mass production, even after he moved his house to New York, in 1940. Every item was made to order.

His clients included Elsie de Wolfe, who introduced Wallis Simpson; Mrs. Henry Ford II; Anita Loos; Irene Worth, Ethel Merman, and Rosalind Russell; Gloria Vanderbilt Cooper, Babe Paley, and C. Z. Guest. His costumes for Mary Martin in *One Touch of Venus*—including the sublime “Venus-pink” Grecian-draped chiffon evening gown on view in this exhibition—caused a sensation; she called herself “a Mainbocher make-over.” He designed uniforms for the WAVES and the Girl Scouts. Though other couturiers, notably the surrealist Elsa Schiaparelli, whom Mainbocher had “discovered” during his days as an editor at *Vogue*, were proposing clothes that were more newsworthy, Mainbocher easily acquired a reputation as one of the leaders of international fashion. His designs came to be so coveted that in 1948 Cole Porter worked his name into lyrics for “Always True to You in My Fashion” (the verse survives in manuscript but was never used): “I’m so crazy, I confess,/ For a brand new evening dress/ That I guess I’d acquiesce to Mainbocher. . . .”

Mainbocher introduced the jeweled cardigan sweater during the war, for fuel-rationed evenings; the first theater suit and the first strapless evening dress (in 1934); the first black mink coat; the first sleeveless shell to wear under a suit jacket. But in retrospect these innovations seem almost incidental to his achievement, which can be summed up in a single word: understatement. Mainbocher authored what we have come to think of as WASP chic, a style based on simple clothes, well tailored but not

form-fitting, in beautiful fabrics—mostly solid colors, plaids, cheerful but not splashy prints, and tweeds—cut on the straight rather than on the bias, so as not to drape too closely against the skin. Though he occasionally juxtaposed disparate materials to intriguing effect, as in a wool tweed suit with a gingham blouse and stole, or a red-and-blue houndstooth check coat worn over a white lace dress, Mainbocher specialized in clothes that firmly refused to call attention to themselves. “I don’t like to see people dressed up,” he told a reporter, at the end of his career. Mainbocher aimed “to dress women to look like ladies,” Janet Flanner wrote. So well did he succeed, according to Sally Kirkland, a former fashion editor of *Life*, that the woman who wore his clothes looked not only as if she was a lady but as if her mother had been a lady as well.

His best advertisement was undoubtedly his most celebrated client, Wallis Simpson, whom he dressed in a manner befitting British royalty even before her marriage to the former King of England. She is represented in this exhibition by a Mainbocher black silk dinner suit with apple-green piping and coral silk bows on the jacket; the line is grave and spare, alleviated only by the felicity of the color combination.

But the most famous of Mainbocher’s designs for the Duchess is the dress he made for her wedding, in June of 1937—a narrow column of gray-blue silk crepe, with long sleeves, a high neck, a row of covered buttons down a wide fitted band at the waist, and gathered fullness at the bustline. Not one of his best efforts, the “Wally” dress, as it was called, was nonetheless copied instantly by several wholesale manufacturers in New York. Its quick “descent” was chronicled from the moment of its unveiling in a sketch in *Women’s Wear Daily* (which quoted the Duchess’s price as \$250), to its subsequent appearance at Bonwit Teller (where a short-skirted version sold for \$25), Lord & Taylor (\$16.95), and, finally, Klein’s (\$8.90)—all in a matter of six weeks, as women rushed to emulate the fashion plate whose unique sense of style had made her irresistible to a king.

The Duchess of Windsor and Mainbocher seem to have brought out in each other aspects of a style that over time came to be thought of as characteristic of them both. She inspired him to create clothes distinguished by their precision

and austerity, an image of assurance and absolute control arrived at by near-total abstention from decoration. Without resorting to ruffles, voluminous skirts, or any of the other usual means of aggrandizement, Mainbocher's best designs project a sense of quiet importance. By appearing to make no effort to impress, the woman who wore them seemed to lack for nothing—money, social position, approval—and so never put other people on their guard. Mainbocher's fashion philosophy constituted a social climber's lesson in Zen.

Viewed in the context of the present, when money triumphs over all and shameless ostentation is rationalized as the proud display of hard-earned wealth, Mainbocher's designs seem so subtle as almost to disappear. Babe Paley's cream-and-beige cashmere dinner suit (from 1956), for instance, with big, flat mother-of-pearl buttons on the jacket and a beige lace blouse underneath, is astoundingly plain. At first glance Mainbocher's work looks, by our standards, like a Spartan adaptation of high fashion. Of the outfits in this show, only Mary Martin's strapless dove-gray silk chiffon evening gown, with cadmium-red contrasting trim and a red panel under the full gray skirt, approaches the grandeur and glamour we've come to expect in evening clothes—approaches, but, being gray, doesn't get very far. Nevertheless, as the eye grows accustomed to Mainbocher's style, its restraint begins to seem not quite so stringent after all, and somehow reassuring.

It was the Duchess of Windsor who decreed that one can never be too rich or too thin. We might disagree about the latter: in recent years we've come around to seeing skin-and-bones as unhealthy. But as for being too rich, few people today would argue. In fact, it now goes without saying that one can't *look* too rich either. Many people flaunt their wealth, particularly if it's self-made, imagining that an opulent display somehow reflects the extent of their achievement. Amid the beads and furbelows, the bustles and poufs, that have lately dominated Paris fashion, Mainbocher's designs sound a quiet reproach: it is better to be underdressed. The women who wore his clothes looked not restless or smug or eager but content. We would stand to learn a lot from a Mainbocher retrospective, an object lesson in the refusal to measure one's worth in material terms. □

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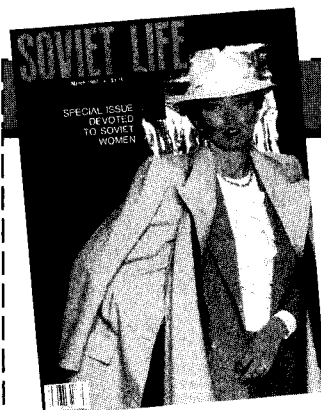
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FOOD

DESIGNS FOR SHOPPING

BY CORBY KUMMER

SUPERMARKETS DON'T look the way they used to. For most of the past forty years the "conventional" supermarket, offering prepackaged produce and meat, big-name staples, and a limited number of non-food items, such as paper goods and cleansers, has been the industry standard. Today supermarkets can often be confused with high-priced gourmet shops or low-priced department stores. New supermarkets usually have not only greatly expanded delicatessens, bakeries, and produce, meat, and fish departments, but also aisles of hardware and drugstore items and even microwave ovens and television sets. Sometimes they seem like banks or post offices or even the electric company, since their owners have begun installing automatic-teller machines, postal counters, and service desks where customers can pay utility bills.

Supermarket owners have always renovated their premises regularly—the industry average is once every seven years. Now the renovations are more drastic and expensive, and frequently involve new buildings. A format called the superstore is the current favorite, and the one most likely to replace a conventional supermarket in your neighborhood. Superstores are often twice as large as conventional stores (conventional stores typically cover 15,000 to 25,000 square feet, superstores 30,000 to 50,000). Timothy Hammonds, who researches trends at the Food Marketing Institute, in Washington, D.C., a trade organization for supermarkets, predicts that in five years superstores will account for 40 percent of all supermarket sales.

But owners are also experimenting with even larger formats, including the superwarehouse and the hypermarket, and some are even trying a format smaller than a conventional store but larger than a convenience store. These new formats, which the owners match to neighborhoods with ever greater precision, have made for more variety and higher quality in what supermarkets offer.

SERVICE DEPARTMENTS are what chiefly distinguish superstores from ordinary supermarkets: produce departments with mist machines to keep salad greens dewy, baskets of exotic fruits, and salad bars with rows of prepared vegetables and fruits; delicatessens with roasts and cured meats cut to order; meat departments with more variety and more butchers than conventional stores have; fresh-fish departments rather than freezer cases full of packaged fillets; bakeries that waft the scent of muffins and croissants throughout the stores; and even florists.

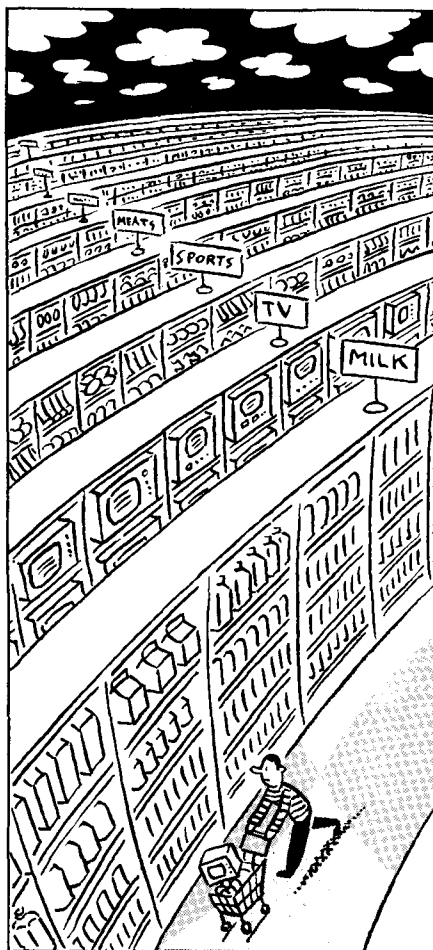
Some of these shiny markets can be disappointing: the prepared-food sections on close inspection look no better than a run-of-the-mill delicatessen, the fish is not always fresh, the bakeries use

only indifferent brands of frozen dough, the floral departments offer little more than carnations and ferns. Others, however, are nearly exhilarating. The service departments at King's, in Short Hills, New Jersey, are as appealing as specialty stores in Europe (which are what ambitious American food sellers emulate). King's is a chain of fifteen stores, all in New Jersey, whose chairman, Allen Bildner, is chairman-elect of the Food Marketing Institute.

The prepared-food department at the Short Hills King's, the flagship store, features an open kitchen where customers can see salads, pasta, pâtés, and main courses being prepared. There is a free-standing snack bar where customers can buy coffee and sandwiches. Store personnel and representatives of food manufacturers stand at tables demonstrating products and handing out samples. The store has a cooking-equipment department and the Cookingstudio, one of the leading cooking schools in the United States. Counters, reach-in refrigerator cases, and shelves laid out diagonally and at unexpected angles near the perimeter open up the sides of the store and lead customers back to the grocery aisles. The building has the usual warehouse shape, but the layout, done in collaboration with Joseph Baum Associates, a restaurant-consulting firm, was the least boxy of any that I saw on a recent tour of supermarkets in the Northeast.

DESIGN HAS BECOME an important way for supermarkets of all kinds to distinguish themselves. New Jersey is a leader in innovative supermarket design, because several of the country's largest chains, including A&P, have their headquarters there. (California is the other leading state for new design.) One of the most famous redesigns has been that of Grand Union, by the graphic-design firm Milton Glaser, Inc. Grand Union has in seven years used Glaser's design in about a hundred of its 371 stores.

The redesign begins with all labels and signs. The aisle directories, for example, run across the ceiling in the middle of the store rather than at each end of the aisle, so that they are visible from everywhere. There are recipe cards and flyers with nutritional information all over the store, a feature that many chains have adopted. (Giant, in and around Washington, D.C., has led the field in providing nutritional information.) In Glaser's design the dairy case



replaces one of the inner aisles rather than running along the perimeter, freeing one side of the store for more produce or for temporary promotions. Little complexes of lucite bins containing bulk candy and health foods break the monotony of other aisles.

The showpiece of the Grand Union chain is the superstore in Paramus, in which many of the service departments have been placed in a central "market square" that has its own kitchen. There are white-and-red-tiled walls, hanging salamis and sausages, and shelves stacked with wheels of cheese. European glass cases in the bakery display some of the best French pastry available outside France.

Perhaps the most controversial redesign is the A&P Futurestore, in Allendale, New Jersey, and eighteen other locations. The stores are entirely black and white, with supergraphics of apples, cows, wedges of cheese, and the like. The design is meant to look extremely clean and to highlight the color of the merchandise, but to some it makes the stores look like clinics. What does highlight the color of the merchandise is the incandescent, rather than fluorescent, lighting. The manager of the Allendale Futurestore told me that once his customers get over feeling that they are in a hospital, they keep coming back. He claimed that since the store opened, two years ago, business has increased 75 percent. A&P says that it is committed to the Futurestore as its prototype superstore.

THE FORMAT THAT could usurp the superstore is the superwarehouse, an outgrowth of the bare-bones warehouse stores that became popular during the recession of the early 1970s. Plain warehouse stores, with their cut-case displays, their selection of groceries limited to what can be bought from wholesalers "on deal," and their lack of such services as check-cashing and bagging, have fallen greatly in popularity as the economy has improved and customers have come to consider variety, service, and convenience more important than price. The superwarehouse has service departments and a greater variety of groceries than the ordinary warehouse store does, but at ordinary warehouse-store prices. The typical superwarehouse is 60,000 square feet—at least 10,000 square feet larger than the typical superstore. Safeway has already built ten superwarehouses in California

and eight in Florida; Kroger, the country's largest chain, is said to have plans to open three superwarehouses soon; and Supermarkets General, the country's seventh-largest chain, has added service departments to its Heartland warehouse stores. The most successful operator of superwarehouses at the moment is Super Valu, the country's largest wholesaler to supermarkets, which operates and franchises retail outlets under the name Cub.

The biggest kind of store of all is the hypermarket, at 150,000 to 200,000 square feet, about half the size of the Astrodome, and selling general merchandise as well as groceries. The hypermarket is considered a French invention; the French company Carrefour has been building profitable hypermarkets in France and South America since the 1960s. (Stores nearly as large were established in the United States during the Depression. They failed.) Carrefour says that it will soon open hypermarkets on the East Coast. Hypershops, another French company (in which Super Valu has invested), has already opened one 200,000-square-foot hypermarket in Cincinnati, under the name Bigg's, and plans to open another in Denver.

These stores combine a superwarehouse with a discount store that sells athletic clothes and equipment, appliances, furniture, and the like—lines in which superstores offer just limited selections. The stores seem successful, but consultants caution that they can work only in densely populated areas. Since they cost at least \$12 million apiece, few companies, even conglomerates like Hypershops, can afford to open many of them. In any case the stores have not been open long enough to establish track records.

SUPERMARKET OWNERS are not thinking only about expansion. Some are looking back to a time before conventional stores became the norm, when customers were loyal to small neighborhood grocery stores that put a high priority on service. Convenience stores like those in the 7-Eleven chain closely resemble the old mom-and-pop corner stores in size and location but not in stock; unlike mom-and-pop stores, they rarely carry produce or meats.

Small supermarkets that do are being started, however. For example, Fresh 'N Counter, in St. Louis, offers a high ratio of produce to groceries in a 12,000-square-foot store. Three stores near San

Francisco, run by Safeway under the name Bon Appétit, carry high-quality perishables and expensive grocery lines; their size ranges from 15,000 to 20,000 square feet.

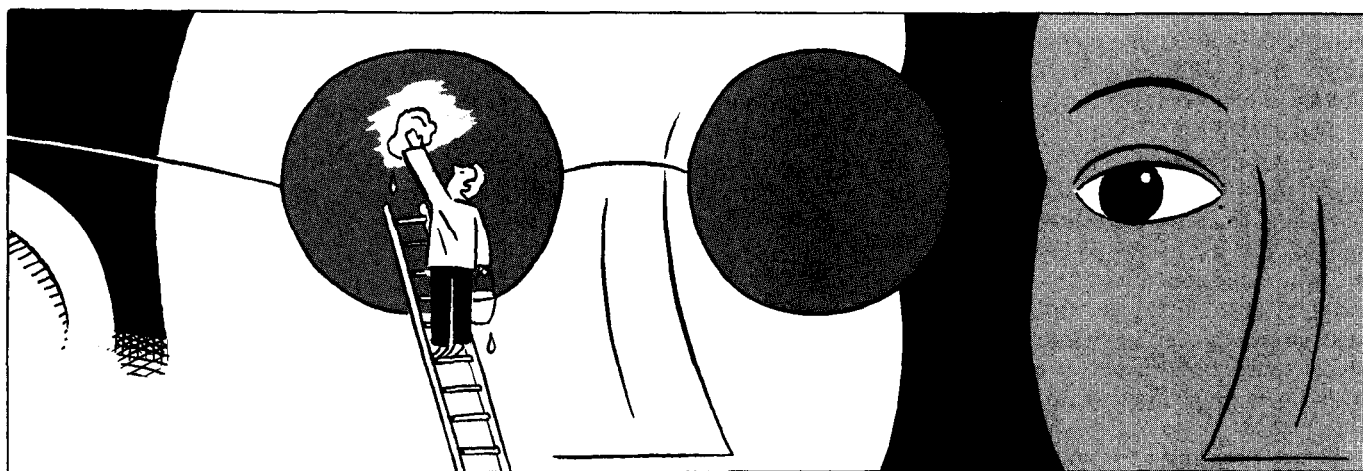
The smaller supermarkets getting the most attention are a new chain begun in Boston, J. Bildner & Sons. The owner, James Bildner, is the son of Allen Bildner, the chairman of King's. J. Bildner & Sons markets have small versions of all the service departments that superstores have—meat, fish, produce, prepared foods, cheese, and bakery—and only a few groceries. Bildner has opened the stores, none of which takes up more than 9,000 square feet (a typical convenience store is 2,600 square feet), in rich downtown and suburban neighborhoods. The stores are built of marble, wood, brass, and tile, and some have chandeliers.

In effect, Bildner is a new category of food store. It is unlike most take-away stores in that it carries raw meat, fish, and produce, and in that the prepared foods are sometimes made off the premises, in a central kitchen. It is unlike supermarkets in that it carries few groceries. It is unlike specialty shops such as butchers, fishmongers, and greengrocers in that its selection of meat, fish, and produce is small, although it models its services on those offered by such shops. Its prices are as high as, or higher than, those of the fanciest specialty shops, despite the narrow selection.

The company claims that sales in four of the Boston stores are more than double initial projections. It recently opened five stores in Atlanta and will soon open four more there; last December it opened a large store in New York, and it plans to open three in Chicago. This goes against the conventional wisdom that what works in one area rarely works in another—no chain has stores in every state, and most chains are confined to one region. James Bildner claims that he has hit upon a "national formula" that he will not alter in his new locations.

The industry is watching J. Bildner & Sons closely. Consumers visit supermarkets more than any other kind of store, and owners will add services or change formats to bring them in even more often and to keep them there longer. Depending on who is doing well down the street, next year your local grocer might be importing glass display cases from Europe or installing warehouse shelving—or both. □

BOOKS



THE MAKING OF A CLASSIC

BY DAVID M. KENNEDY

GUNNAR MYRDAL AND
BLACK-WHITE RELATIONS:
The Use and Abuse of *An American
Dilemma*, 1944–1969
by David W. Southern.
Louisiana State University Press,
\$35.00.

IN 1938 THE CARNEGIE Corporation commissioned a forty-year-old Swedish economist, Gunnar Myrdal, to undertake “a comprehensive study of the Negro in the United States.” Six years later, in the midst of the Second World War, Myrdal published the 1,535 pages of his results as *An American Dilemma: The Negro Problem and Modern Democracy*. The book was immediately and widely acclaimed. Its impact on race relations in the United States has been compared to that of *Uncle Tom’s Cabin*, which Lincoln, as legend has it, said was responsible for starting the Civil War.

Myrdal was an urbane academician and statesman who had helped to build a modern welfare state in his native country, and who would later receive the Nobel Prize in economics. His qualifications to head the Negro study included not only his erudition and experience but also, ironically, his ignorance. Unlike most American social scientists, the Swede could examine the vexed American race question through a prism undistorted by prejudice.

The choice of Myrdal was unforesee-

ably fortunate. He brought to his task a humane soul, a keen mind, enormous energy, and an affectionate but scarcely uncritical regard for American culture. Most important, he possessed an unshakably optimistic temperament. He knew enough about the American scene to sense, as he later reflected, that in 1938 “big changes were pending and a new trend was at the point of asserting itself.”

Myrdal began his researches by motoring through the South in a big Buick in October and November of 1938. Armed with “that naiveté which, after all, is my chief advantage,” he bluntly interrogated white southerners: “Why don’t you want your daughter to marry a Negro?” “Do you ever fantasize about sleeping with a black man?” He plunged into Dixie again the following year, accompanied by his black colleague Ralph Bunche, who on one occasion felt obliged to quell white suspicions by passing himself off as Myrdal’s chauffeur.

Those excursions challenged even Myrdal’s irrepressible buoyancy. “I didn’t realize what a terrible problem you have put me into. I mean we are horrified,” he reported to the president of the Carnegie Corporation, and he later recollected being “shocked and scared to the bones by all the evils I saw.” By the 1930s the Jim Crow regime of political emasculation and social segregation had reached a malevolent “perfection,” according to the historian C. Vann Woodward. To these historic burdens on blacks the Depression added the crushing weight of a collapsed cotton economy. Among the atrocities of this ghastly system was the dispirited fatal-

ism with which blacks, apparently, acquiesced in it. Worse still was the satisfaction with which whites complacently presided over it. Future generations, Woodward has written,

may well wonder how their elders could have daily made their way back and forth through this anthropological museum of Southern folkways and pronounced its wonders perfectly normal. . . . To see it as it actually was often required borrowed vision, particularly a look through foreign eyes. . . . It is noteworthy that the first writer to succeed significantly in removing the scales from native whites’ eyes was a foreigner, the Swedish scholar Gunnar Myrdal, author of *An American Dilemma*.

Myrdal hoped not only to make whites see the enormity of the American racial system but also to prompt them to change it. If presented correctly, he believed, his study could by accomplishing the first objective automatically realize the second. Here, despite his foreignness, Myrdal adopted a strategy with roots indigenous to American political culture, especially in the progressive movement that thrived in the early twentieth century.

Significantly, the Negro study had its origins in a proposal made by Newton D. Baker, a Carnegie Corporation trustee, in 1935. Baker, a former reform mayor of Cleveland and Secretary of War in Woodrow Wilson’s Cabinet, personified the progressive faith that facts would make people free. Publicity and an appeal to their countrymen’s better natures, progressives believed, were the chief instruments of social change. Myrdal shared that easy confidence in the

power of mind. Though Baker was in his grave by the time Myrdal began his research, the Swedish scholar ultimately decided to build his study around a core of ideas—to which he gave the name “the American Creed”—in a way that the American progressive would surely have understood and applauded.

That core of ideas and its fate are the essential subjects of David W. Southern's engrossing and disturbing book. Southern, who teaches history at Westminster College, in Missouri, explains better than anyone has before how *An American Dilemma* came to be—there's even an account of Myrdal's daring voyage across the wartime Atlantic on an explosives-laden ship, and his dramatic return to the United States by way of the Soviet Union and Japan. Southern also analyzes in impressive detail what later became of Myrdal's central arguments, in the hands of civil-rights reformers, white southern critics, jurists, politicians, and social scientists in the quarter century following the book's publication. The result is not just a routine intellectual history but an unsettling chronicle of changing moral sentiments. Indeed, in its broadest terms this is a study of the sorry declension of the national mood from the heady self-confidence of the Second World War to the chastened anxiety of the present day.

“ALL RIGHT, THEN, I'll go to hell,” a conscience-stricken Huck Finn declares when he decides to defy the law of the land and the Lord and free Jim from slavery. Myrdal deftly inverted Mark Twain's moral calculus. By the mid-twentieth century, he argued, America's formal laws and officially declared values—the American creed—demanded racial justice. But irrational prejudice had corrupted the consciences of whites; their actual behavior toward blacks mocked the national ideals of “the essential dignity of the individual human being, of the fundamental equality of all men, and of certain inalienable rights to freedom, justice, and a fair opportunity.” This contradiction between belief and behavior—“a problem in the heart of the [white] American”—constituted “the American dilemma.” The tension between professed values and inner prejudice was inherently unstable, Myrdal believed, and would be resolved only as individuals brought their attitudes and practices into conformity with the tenets of the American creed.

Myrdal's invocation of the American

American spoken here.

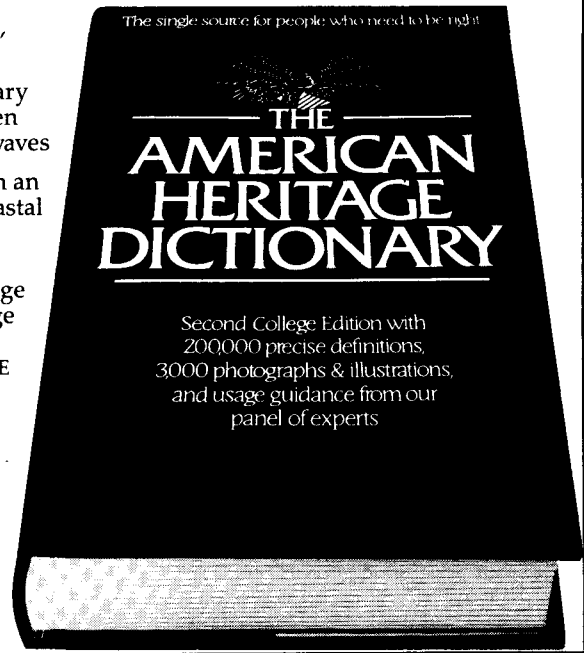


Test your knowledge of regional American English by matching the words on the left with the correct meanings on the right.

pocosin	a mudhole, a mire
loblolly	a momentary lull between breaking waves
slatch	a swamp in an upland coastal region

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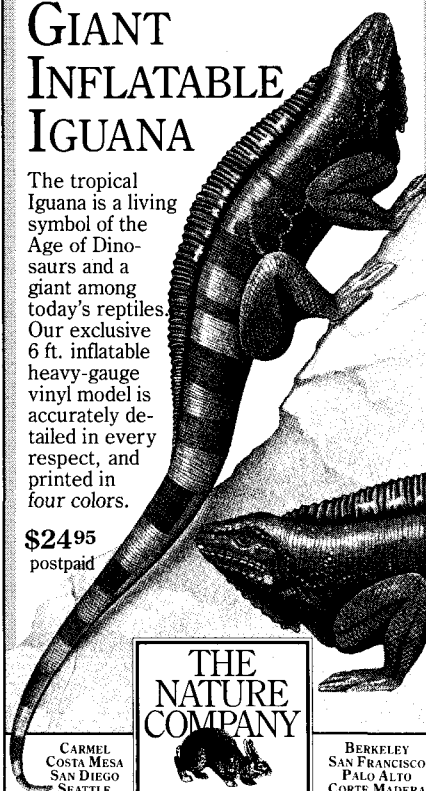


pocosin = a swamp in an upland coastal region; **loblolly** = a mudhole, a mire, or a lout; **slatch** = a momentary lull between breaking waves. All these words are labeled as regionalisms in THE AMERICAN HERITAGE DICTIONARY.

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creed aimed squarely at inducing white guilt, but it also offered a face-saving means of expiation. Shrewdly capitalizing on the idealistic spirit of wartime, he pointed out for white Americans an escape from their racist history which followed the high road of their own most cherished principles.

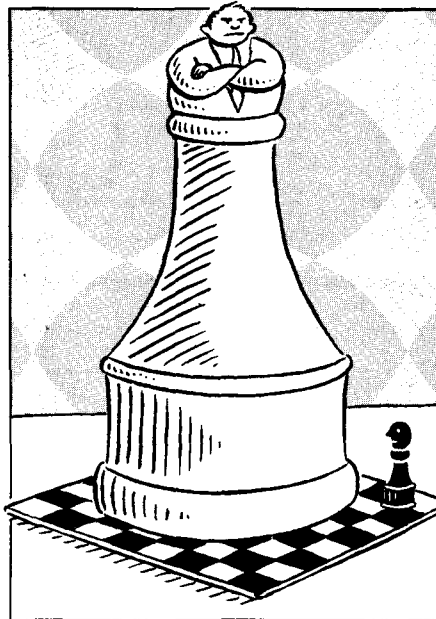
Pre-eminently *An American Dilemma* was a book about ideas, especially the ideas of whites about blacks. If only those ideas could be reformulated, Myrdal believed, the lot of blacks could be improved. Most of his book was devoted to an analysis of Afro-American life that emphasized environmental, rather than biological, determinants of the black condition. And the most important of those environmental factors was discrimination by whites: "It is thus the white majority group," he insisted, "that naturally determines the Negro's 'place.'" The mechanism of oppression worked according to what Myrdal called the "principle of cumulation," whereby discrimination forced blacks into a lowly social position and that position, in turn, confirmed the bigoted belief in black inferiority. But this self-reinforcing cycle of perception and behavior could work two ways, he argued: an objective improvement in the social standing of blacks would diminish white prejudice, opening opportunities for further gains.

Myrdal's analysis suggested that the iron cage of discrimination could be dismantled relatively painlessly. He reinforced the hopeful tone of his analysis by writing consistently in a declaratory, rather than a hortatory, vein. He did not so much summon white Americans to recognize and live up to their highest ideals as posit the existence of the creed and predict its inevitable triumph.

Myrdal's use of the creed as the central organizing principle of his book was a stroke of psychological and political genius. It complimented Americans even as it criticized them, and made his suggested remedies for the nation's chronic racial illness seem palatable, even necessary. Nor was Myrdal's reliance on the creed merely an artful propaganda ploy. As Walter A. Jackson, of North Carolina State University, reports in a forthcoming study, Myrdal genuinely believed that the explicitness and pervasiveness of democratic values made America distinctive. Myrdal and his wife, worried about the susceptibility of their own countrymen to Nazism in the Second World War, published a notable

book, *Kontakt med Amerika*, in 1941. In it, the Myrdals identified the American "secret" as "a living system of expressed ideals for human cooperation which is unified, stable, and clearly formulated," and they urged their fellow Swedes to articulate and promulgate a similar set of values as a prophylactic against the Nazi bacillus.

This was high praise for the American national character, but as social science it was dubious. Myrdal sweepingly claimed that "even a poor and uneducated white person in some isolated and backward rural region in the Deep South, who is violently prejudiced against the Negro, . . . has also a whole compartment in his valuation sphere housing the entire American Creed of



liberty, equality, justice, and fair opportunity for everybody." In fact, although he had hit upon the concepts of creed and dilemma on his 1938 trip through the South, where the "difference between words and deeds was to us blatant," those constructions were far more the product of Myrdal's creative intuition than of empirical research. Some of his own collaborators tried to talk him out of his faith in the creed and his belief that prejudice must surely yield to the revelations of reason and the alleged need for mental consistency. A stern sexual code, they pointed out, notoriously failed to regulate sexual behavior. And, they might have added, if there was any observable trend to reconcile sexual precepts and practices, it was the latter that prompted changes in the former, not vice versa. But Myrdal was con-

fident that he had discovered a powerful lever for prying the American racial system loose from its ancient moorings, and he swept such reservations aside. "Let us be bold!" he urged his staff. "Fresh and far-reaching proposals for our social policy—these must be the distinguishing characteristics of our Study."

Myrdal's boldness seemed amply vindicated on the book's publication, in 1944. It is true that many blacks, then and later, were outraged at its description of black culture as a "distorted" and "pathological" variant of general American culture. And some blacks, as well as many whites, found Myrdal's assertion that "the only thing Negroes ask for is to be accepted as Americans" simply incredible. But for the most part those criticisms were drowned in a chorus of appreciative adulation, hymned by a nation both flattered and shamed by Myrdal's opinions, and obviously longing for some grounds on which to be hopeful about the race question.

For the next twenty years, as Southern carefully demonstrates, Myrdal's argument provided the chart and compass for civil-rights reformers. Hubert Humphrey exemplified this influence when he declared in a 1947 speech that "our conscience in America has become corroded . . . with . . . guilt, because we profess a belief in justice and equality of opportunity, but we practice injustice and discrimination." Air Force Secretary Stuart Symington acknowledged Myrdal's influence on his efforts to end segregation in the armed forces. "What determined me . . . was a quotation . . . in Myrdal's book," Symington explained: "First the American white man makes the negro clean his shoes, then criticizes him for being a bootblack." The Supreme Court cited Myrdal in the landmark *Brown v. Board of Education* school-desegregation case of 1954. And Martin Luther King, Jr., dreamed in his famous speech at the Lincoln Memorial in 1963 "that one day this nation will rise up and live out the true meaning of its creed: We hold these truths to be self-evident, that all men are created equal." But even as King's words echoed over the Mall, the persuasive power of Myrdal's thesis was, unfortunately, fading.

WHEN THE TWENTIETH-anniversary edition of *An American Dilemma* was published, just slightly precociously, in 1962, it included a postscript by one of Myrdal's principal collaborators,

who catalogued the enormous changes in race relations since the book's birth and serenely predicted "the end of all formal segregation and discrimination within a decade." In a limited sense he proved right, but the historian Oscar Handlin was more prescient in his review of the anniversary edition. True, he conceded, the generation since 1944 had witnessed prodigious progress for blacks. But now, he suggested, the demands of blacks were escalating even as the resistance of whites was stiffening. The principle of cumulation seemed stalled. *An American Dilemma*, he concluded, "may not therefore be as useful a guide in the next two decades as in the past two."

Six years later, writing from across a fault line of time and events that had jolted the nation with race riots, the cry of "black power," the assassination of Martin Luther King, Jr., and the vicious presidential campaign of George Wallace, another noted historian of American race relations, Carl Degler, undertook yet another retrospective appraisal of Myrdal.

An American Dilemma, Degler charged, had grossly underestimated the violence and persistence of racism in the North. He found especially myopic Myrdal's claim that "people want to be rational, and they want to feel that they are good and righteous. . . . The whites have all the power, but they are split in their moral personality. Their better selves are with the insurgents. The Negroes do not need any other allies." Myrdal's optimism "is the greatest weakness in his book," Degler concluded. "He is almost naive in his expectations as to how and when prejudice and discrimination will end in the United States."

Joel Williamson, another prominent student of American race relations, wrote not long ago: "What was so clear from the aracial heights of Sweden was all but invisible in the biracial bogs of the South. [He might easily have included the North in this judgment.] Ideally, neatly logical, there should have been a dilemma. In the real and conscious mind of the South, there was none."

Only recently have social scientists, notably David O. Sears and Donald R. Kinder, subjected the concept of the American creed to close empirical scrutiny. The results are sobering. There is such a creed, they suggest, but it contains, in addition to the values of equality and fair play that Myrdal intuited, other values, such as "individualism

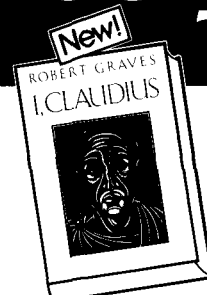
and self-reliance, the work ethic, obedience, and discipline," all of which can be invoked, however perversely, to feed racist appetites. "If this is true," Southern observes in an ironic twist on Myrdal's central theme, "the American creed now serves essentially as a white device to rationalize the inferior position of the black minority in American society."

In the last analysis, therefore, this disquieting book about another book tells a tale of spreading disillusionment. It describes in the supremely important area of race relations the general hemorrhaging of hope that has so widely beset us in the past generation. It is nearly half a century since Myrdal arrived in America to take up his study of the seemingly perpetual American dilemma. That same year of 1938, it turns out, is the year that Henry Adams imagined might be the date of his reincarnation. In the concluding sentence of his autobiography Adams, depressed and disenchanted, contemplated a return to life on the centenary of his birth, in 1838. Perhaps then, he hoped, "for the first time since man began his education among the carnivores, [I] would find a world that sensitive and timid natures could regard without a shudder."

Adams evidently failed of resurrection in 1938, but his shade might have taken consolation in the effort that Myrdal was then beginning, and in the events of the ensuing quarter century. But his sensitive nature would have found no solace had he witnessed the racist killing in the Howard Beach neighborhood of Queens during the Christmas season of 1986, or visited Forsyth County, Georgia, recently, and he would surely shudder at the recent confession by C. Vann Woodward that he is "haunted by the prospect of unmitigated horror to come" in American race relations.

Myrdal may seem irredeemably naive in times like these, but our desire—our need—to hear his message again is evident in the periodic revisitations to his monumental and hopeful work: by Handlin and Degler in the 1960s, by Southern's fine study, and by Walter Jackson's equally penetrating book. Myrdal's progressive-style faith in the American creed may be insufficient to cure the cancer of American racism, but it is surely necessary. Our better selves, on which Myrdal counted, may be fragile and leaky vessels in which to carry mankind's hopes, but if not on those selves, on what others shall we depend? □

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HOME SWEET HOME

BY BERNARD KNOX

A HISTORY OF PRIVATE LIFE
Volume I, FROM PAGAN ROME
TO BYZANTIUM
edited by Paul Veyne.
Belknap/Harvard University Press,
\$29.50.

IN 1929 LUCIEN FEBVRE and Marc Bloch founded a historical journal called *Annales: économies, sociétés, civilisations*. The title was, as the French say, *tout un programme*. History from now on was to abandon its traditional obsession with the lives and deaths of sovereigns, Popes, and generals, and the wars and treaties that changed the map of Europe from one generation to another, and to concentrate instead on the analysis of society, the growth, duration, and metamorphoses of mental and social structures, long-term trends and slow but fundamental changes. These ideas, and the methods developed by the founders and their students, have left their stamp on many of the French historians whose work is so well known in this country—Braudel, Foucault, and Ariès, to name only three. Philippe Ariès, familiar to American readers as the author of *Centuries of Childhood* and *The Hour of Our Death*, served until his own, recent death as general editor, together with Georges Duby, of an ambitious project that is still under way (three volumes

completed and two to come): *A History of Private Life*. It draws on the contributions of many specialists to present a panorama of the concepts and realities of private life from the Roman Empire to our own times.

The first volume, *From Pagan Rome to Byzantium*, edited by Paul Veyne, of the Collège de France, has now appeared in an English translation. It contains essays by five experts on the Roman Empire, Late Antiquity, Roman Africa, the early Middle Ages in the west, and Byzantium in the tenth and eleventh centuries. Veyne writes the first and longest chapter of the book, a vigorous, witty, and profound examination of private life in the Roman Empire before the triumph of Christianity. "History," he says in his introduction, "is a journey into otherness," and the Romans, he finds, "were very different from us—no less exotic than the Indians of North America or the Japanese." This polemical stance, a rejection of the generally accepted idea that Roman civilization is the basis of our own, is supported by a survey of the life of an upper-class Roman "from mother's womb to last will and testament."

The most striking difference between Roman family life and our own is the awesome power of the Roman father, the *paterfamilias*. He could disown his child at birth, with no reason given; in that case it would be exposed for any passerby to appropriate and raise, most probably as a slave. If accepted, the child was raised by strangers, a wet nurse and a private teacher; if a girl, it was married off at an early age. A boy

was given what passed for higher education in Rome (mainly training in rhetoric), but as long as his father lived, he remained in his father's power, which included the right (seldom exercised) to condemn the son to death and the right (often exercised) to disinherit him. The young man could not embark on a career in business or politics without his father's consent and financial help; he lived, as Veyne puts it, in "a kind of slavery." Commenting on the proscriptions, those organized massacres that were a regular feature of the civil wars that preceded the establishment of the empire, a Roman historian wrote, "The loyalty of wives was greatest, that of freedmen less great, that of slaves not insignificant, and that of sons nil, so hard it is to bear the postponement of hope!"

Veyne's far-reaching examination of Roman family life in all its aspects—marriage, slavery, work, leisure, religion—highlights at almost every point the contrast between the Romans' basic assumptions and ours. Especially revealing are the discussion of the spoils system of the Roman aristocracy—"They made no clear distinction between . . . public finances and personal wealth. . . . Public officials paid themselves"—and the exploration of the labyrinthine complications that resulted from the presence in the household of domestic slaves of both sexes.

The Roman house, the *domus*, was a public as well as a private space, for it had to provide room for the daily visits of the householder's *clientela*, his business and political dependents, who, together with a crowd of hangers-on who came for handouts of food or money, affirmed the prestige of their patron by their assiduous attendance. The third chapter of the book, by Yvon Thébert, is devoted to the public and private functions of the Roman patrician house; it takes as its examples some of the splendid archaeological sites that have been excavated in North Africa. The second chapter, on Late Antiquity, is by Peter Brown. It covers the emergence and eventual triumph of the Christian Church, which Brown sees as the agent that imposed on the middle and lower classes the morality preached, without much success, to the upper classes by the philosophers, especially the Stoics. The Church also introduced a "new marital morality," which, as explicated by Saint Augustine, accepted sexual intercourse for married couples as a sort of necessary evil, a "venial sin," and so, as

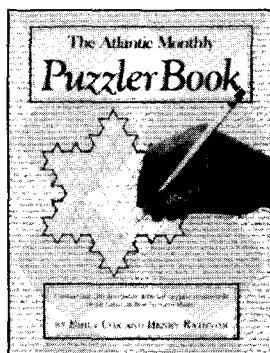


Brown puts it, "opened a crack in the door of the Christian household" through which "many a cold wind would blow, from the canonists and their readers, the father-confessors of the later Middle Ages."

Though the military and political structures of the Roman Empire collapsed in the west under the onslaught of the Germanic tribes, the eastern, Greek-speaking half of the empire, now ruled from Byzantium, survived for many centuries. Private life in two of those centuries, the tenth and eleventh, is reconstructed from the frustratingly scarce evidence by Evelyne Patlagean, who gives equal attention to secular family homes and the monastic institutions that played so large a role in Byzantine civilization.

In the west, however, and particularly in what is now France north of the Loire, no vestige of the Roman order remained except the Catholic Church, which somehow survived in a social chaos that Michel Rouche re-creates for us in what is perhaps the most sensational essay in the book. "For the newcomers, the Germans," Rouche says in his introductory note, "practically everything fell within the private domain." The imperial Roman ideal of public life, promoted by laws, troops, and magistrates, vanished into thin air; the Germanic Franks had nothing that could properly be called a state. They were a band of victorious warriors held together under their king by private interests. The king's testament divided his kingdom among his male heirs; it was the "reduction of the state to the level of mere private real estate," and predictably, it led to bloody civil wars. What oral ancestral law there was punished theft more severely than murder—"an ineluctable consequence of a warrior society's preference for personal possessions over life and limb." Murder, in fact, was a purely private matter. The family of the victim might be offered wergeld, a sum fixed by custom and corresponding to the social status of the murdered man, but if it was not offered, or was refused, the family's revenge would start a feud that might last for centuries.

Into this nightmare of privatization the Christian Church endeavored to introduce some standards of civilized conduct, but it was uphill work. In fact, the Church itself was privatized; Germanic lords who donated land and materials for the construction of churches and monasteries came to feel that they owned not



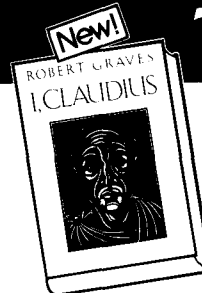
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only the buildings but even the people who lived in them. They would have one of their slaves educated by the Church and so acquire a private priest. "By the tenth century," Roche tells us, "the situation had deteriorated to the point where it was intolerable." The result was the Gregorian reform, "a liberation of the clergy." But for that, and for some fuller explanation of how the Church managed to survive in these barbarous kingdoms, we shall have to wait for the translation of Volume II: *De l'Europe féodale à la Renaissance*.

This first volume is one of the most arresting, original, and rewarding historical surveys to be published in many years, and its value is enhanced by the hundreds of illustrations, which present almost every conceivable detail of private life as it was lived in the centuries from the Emperor Augustus to the time of the Frankish King Louis II (the Stammerer), who met his end on horseback, while chasing a girl. She ran into a house; Louis followed her and, forgetting that he was still in the saddle, split his skull open on the lintel of the door. □

SCHOOL FOR SCANDAL

BY ANTHONY BURGESS

THE RED AND THE BLUE:

Cambridge, Treason and Intelligence
by Andrew Sinclair.
Little, Brown, \$17.95.

THE RED IS WHAT it used to be better to be dead than, or it may have been the other way round; the blue is the color of either Oxford or Cambridge—dark blue for the first, light blue for the other. In the United States, Cambridge is merely the town that houses Harvard University; in England it is both town and university. Andrew Sinclair is a double first from Cambridge, and he dedicates his book to "Cambridge, right and wrong." He is very British—his first novel, *Breaking of Bumbo*, elegantly filmed, is about life in the Guards (the monarch's Praetorian protectors); an admirable later novel, *Magog*, is a mythical portrait of England—but he has written brilliant and well-informed studies of aspects of American life, including a history of the United States. Americans approaching this new work of his are confronting not

a hidebound Brit but a full-fledged citizen of Anglophonia. The treason and intelligence he writes about have their relevance to America. Neither the double helix nor the Manhattan Project could have taken off without Cambridge; the treason, which had its origin in an ingrown coterie in a town in the English fen country, shook the West. What happened decades ago in Cambridge still has the power to enhance life or summon death.

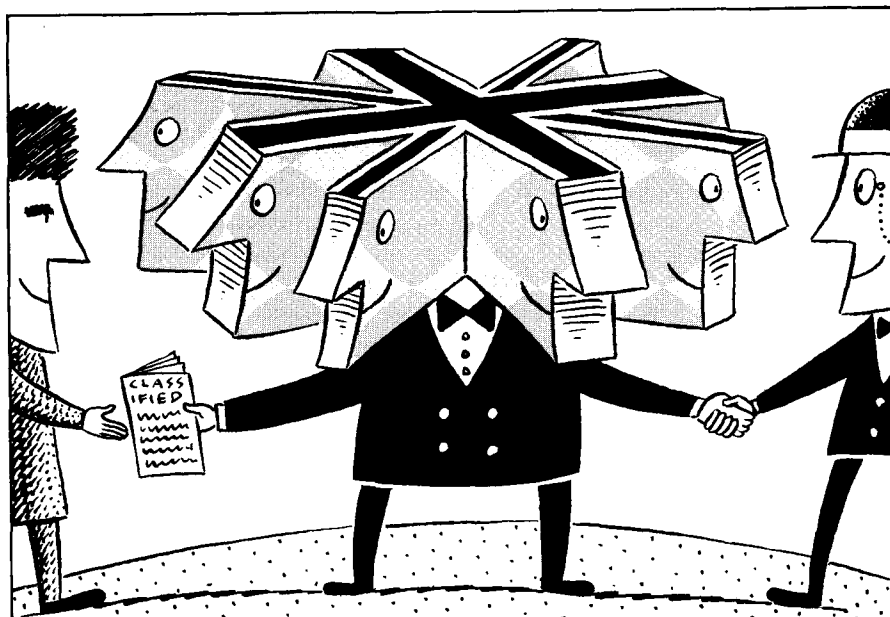
I myself am a graduate of Manchester University, which is black-bricked from industrial pollution and very far from venerable. Oxford and Cambridge are medieval foundations, and over the centuries they have developed what may vaguely be termed opposite ideologies—Oxford, "home of lost causes," essentially humanistic; Cambridge drawn to exact knowledge, where, with men like I. A. Richards, even the study of literature became a branch of science. Plato for one, we might say; Aristotle for the other. Oxford has nothing like the Cavendish laboratories, whose great leading figure was Ernest Rutherford, where John Cockcroft split the atom and Patrick Blackett's work led to the discovery of the neutron. Yet one must not push the opposition too far. Cambridge is as "English" as Oxford, in that it has produced *bricoleurs* more than engineers, men who changed the world by conducting experiments on low budgets and, literally, with string and sealing wax.

Sinclair's epigraph is from John Webster's *The Duchess of Malfi*, in which the villain Bosola defines a "familiar" as "a very quaint invisible devil in the flesh/ An intelligencer." *Intelligencer* has highly sinister connotations, whereas *intelligence* used to be neutral if ambiguous. Aldous Huxley's Spandrell, in *Point Counter Point*, maintains that there are three kinds of intelligence—"human, animal and military." In the Cavendish before the last war, science used human intelligence to furnish the world with knowledge that, the nature of the modern state being what it is, became known as intelligence in another sense—intelligence as a potential or actual weapon. The men of the Cavendish were liberal-minded in a manner that Oxford approved: they believed in the dissemination of scientific intelligence without reference to what this, that, or the other sovereign state could make of it. Such men were not naive: they were well aware that the splitting of the atom had a destructive potential, but they placed

free access to scientific knowledge far above the exigencies of statecraft. This was the ancient tradition, a subscription to the belief that universities were universal.

But these scientists also had their political beliefs. Being human, they could scarcely subsist without them. They lived and worked in a country whose rulers, mostly brought up in the Oxford tradition of classical humanism, tended to despise science. The scientists saw in Soviet Russia the fulfillment of a dream—a state founded on scientific principles (even though Marxism followed an outdated materialistic philosophy). They could not be right-wing, since British conservatism was set in a quasi-humanistic satisfaction with an unprogressive status quo. It is significant that none of the discoveries of the Cavendish were ever passed to Nazi Germany, except possibly through espionage. Russians, on the other hand, were welcome to participate in, and even promote, Cavendish investigations into the nature of matter. One of the greatest of the Russians was Peter Kapitsa, Rutherford's pet protégé. Cockroft and Blackett, both left-wing men, were dear friends of Kapitsa's. If Kapitsa became the father of nuclear research in the Soviet Union, it was the Cavendish that sponsored him. But in those days what Evelyn Waugh called the dismemberment of Christendom had not yet occurred. There was no Cold War. It is too easy to fasten the term treason to men who had not yet witnessed the East-West split. The only conceivable political philosophy for a Cambridge scientist was socialistic. The only socialistic state in the world was Soviet Russia. It was as simple as that.

SINCLAIR, EAGER to pursue a thesis in which bad guys confront good, perhaps makes too much of the pure-minded, unpolitical internationalism of the Cambridge scientists. Not even hindsight may call them bad guys; indeed, the fact that we have had no world war since 1945 may be attributed to the balance of nuclear power that, in its remote way, the Cavendish initiated. The bad guys are to be found on the arts side, specifically in a Cambridge elite known blasphemously as the Apostles. The Apostles had a Victorian origin. They were undergraduates who were out of sympathy with the establishment, meaning the Oxford politicians and the Church of England. They cultivated a



subversive alternative ethos, in which the only social group to which loyalty was permitted was the Apostles themselves. They were clever, even brilliant, and were so, as it were, collectively narcissistic that they were in love not only with themselves but also with each other. Some of them were homosexuals, in an age in which membership in what Auden called the Homintern was not merely antisocial but criminal. Shakespeare knew of such sodalities. His patron the Earl of Southampton was one of the members of an all-male group given to the homoerotic, and in *Love's Labour's Lost*, with the ironic vigor of a non-university man, our bard of the non-elite commonalty gave them a sound pasting.

The Apostles knew they were brilliant, and the brilliance of some of them has been acknowledged by the whole world. They had a London embassy in the district of Bloomsbury, and it even had female associate members—like Virginia Woolf, dutifully homosexual and convinced of her intellectual distinction. It also had the great economist John Maynard Keynes, the philosopher Bertrand Russell, the subversive historian Lytton Strachey. E. M. Forster, the novelist, was boosted by Bloomsbury as having transformed the British novel. "Only connect," he said, perhaps limiting his connection to the Apostles, with a little "trade" on the side. He also said something highly dangerous about friendship and patriotism, hoping that if it came to betraying his friend or betraying his country, he would have the guts to betray his country.

The Apostles of the postwar period

have been notable for producing betrayers of their country and, while their hand was in, other people's countries as well. The question is still asked: What made men like my distant cousin Guy Burgess and Anthony Blunt and the rest turn traitor? The answer may lie in the schizophrenia of Apostleship: you had to pretend conformity while privately pursuing high and dangerous nonconformism, especially in the sexual sphere. You presented one face to the world and another to your friends. Such men were apt material for the Soviet spy-recruiters who infiltrated Cambridge. The question why they were found acceptable to such a sensitive arm of the state as the British Foreign Office need not be asked. They were very anxious to work in foreign affairs; they had charm, brains, decent manners. If, like Burgess, they behaved badly in public, this was mere eccentricity, permissible in an Apostle. They were brilliant enough to be installed in the Washington Embassy, where they had a heaven-sent opportunity to betray not just Britain but the whole of the West.

We non-Apostles are mostly too single-minded to appreciate the skill with which these traitors followed opposed paths simultaneously. Take Anthony Blunt, comparatively recently uncovered and denounced. He served the Queen as Surveyor of the Queen's Pictures, was knighted for his services, and passed on secrets to the Soviets which ensured the deaths of many. To specialize in exquisite regions of art and at the same time to spill, though at a safe remove, the blood of brave men of the

free world argues schizophrenic criminality, but such a dichotomy came naturally to a born Apostle. We are all perhaps more dichotomous than we realize, but the Apostles developed the splitting of the human brain with a zest comparable to that other splitting at the Cavendish.

Sinclair is loyal to his alma mater, as is only right, and it is with a certain relief that he lists the achievements of intellectual Cambridge in the sphere of creation, as opposed to cerebral or nuclear fission. Whether he likes F. R. Leavis or not, it was he and his myrmidons who reformed literary criticism. Sir Peter Hall and Trevor Nunn became, respectively, directors of the National Theatre

and the Royal Shakespeare Company. Karl Miller and John Gross became highly influential editors. Jonathan Miller (no relation, though he and Karl married sisters) has shown a Renaissance brilliance in becoming a medical pundit and a skilled stage and television director. Comedy entered a new world with *Beyond the Fringe*, *That Was the Week That Was*, and *Monty Python*, all the work of Cantabrigians. But with the exception of Jonathan Miller, none of these Cantabrigians were Apostles. What Sinclair calls the "splendid stealthiness" of that elite conspiracy had nothing to give to either England or the rest of the world except highly polished hypocrisy. □

tives. He is probably right in suspecting that religious bigotry played some part in the wretched business. His narrative is as compelling as a fine detective story and alarming, as well, because the elements that conspired against the Chamberlains are not peculiar to Australia. The same sort of thing could happen here.

COD STREUTH by Bamber Gascoigne. Available Press, \$4.95. Mr. Gascoigne's novel is a Rabelaisian (literally—Rabelais supports the whole structure) version of *The Heart of Darkness*, and it is either outrageously funny or flatly outrageous, depending on the reader's reaction to religio-sexual satire.

WHERE IS NICARAGUA? by Peter Davis. Simon & Schuster, \$18.95. Mr. Davis was in Nicaragua in 1983, with a brief return in 1986, and his report of the contradictory opinions he heard and the ambiguous conditions he observed justifies his statement that "a visit to Nicaragua is a visit to a state of flux." Insofar as his well-written, deliberately low-key account presents a firm conclusion, it is that the kindest words for United States policy in the country are *ungodly stupid*.

FAMILY SKELETONS by Henrietta Garnett. Knopf, \$15.95. In prose that patters like rain on a tin roof, Miss Garnett describes her heroine's escape from an obscurely sinister background. The final, therapeutic revelation will come as no surprise to any experienced reader of gothics.

THE MAN WHO FELL FROM THE SKY by William Norris. Viking, \$17.95. In July, 1928, Alfred Loewenstein, an international financier of murky reputation, fell out of his private plane somewhere over the English Channel. At least that was the story told by the plane's six other occupants and accepted by officials in Belgium, for which the man was bound, France, where the plane landed, and England, where the flight originated. Only the Fokker company, the builder of the machine, took any interest in the preposterous unlikelihood of such an accident, and Fokker's protests could be dismissed as self-interested. "Aeroplanes that permit passengers to fall out are bad for business." Mr. Norris, a licensed pilot and an aviation enthusiast, has worked hard and cleverly to discover how the affair could have been man-

BRIEF REVIEWS



RIDING HIGH by Barbara Sneyd, adapted by Phyllida Barstow. Dodd, Mead, \$18.95. Barbara Sneyd was born in 1882 and grew up in a fox-hunting set in the English Lake Country. She was a talented juvenile artist who, from 1896 to 1903, kept a diary in the form of a sketchbook. Her subjects were flowers, pets, picnics, parties, the dancing classes she despised, and the horses that, as a positively obsessed horsewoman, she adored. Her small watercolors are a charming, amusing record of country life, and Miss Barstow has supplemented them with extracts from the letters Barbara wrote to her cousin and confidante, Mabel Gale. All through this engaging little book one wonders why Barbara Sneyd is not a familiar name in the English art world. Miss Barstow has not been able to learn exactly what happened (odd, with all those letters surviving), but clearly there was a tragedy of some sort in which the high spirits and exceptional ability of Barbara Sneyd were destroyed.

THE SECRET MUSEUM by Walter Kendrick. Viking, \$18.95. Mr. Kendrick argues that all past attempts to define, and thereby find means to control, pornography have failed and that further attempts therefore should not be made. He produces excellent evidence for the first half of his case. His conclusion ignores the reported rise of pornographic

films employing children, who presumably have no control over the nature of their work nor any protection against its possible psychological effects. Perhaps he believes that child labor laws cover that situation adequately.

EVIL ANGELS by John Bryson. Summit, \$18.95. Although all the witnesses present at the Ayers Rock campground agreed that a dingo had taken the Chamberlain baby, Australian authorities remote from the scene persisted in believing that the parents had murdered their child. The unfortunate couple—a Seventh-day Adventist clergyman and his pious wife—were brought to trial and the jury was befuddled into finding them guilty. Mrs. Chamberlain was sentenced to life imprisonment and released when pure chance turned up evidence that destroyed the prosecution's case. Mr. Bryson, as both a trial lawyer and an expert journalist, became fascinated by the affair. He has examined events, evidence, and court proceedings and describes, with enormous skill, the tangle of prejudice, irresponsible news coverage, inept pathology, and personal ambition that led to an outrageous miscarriage of justice. His book is somewhat one-sided, because the officials responsible for the prosecution of the Chamberlains are never directly heard from (they have naturally taken cover) and the author can only guess at their mo-

aged and who could have commissioned what was almost certainly a murder. He has plausibly solved the problem of method. The murderer remains unknown, because Mr. Norris's research into Loewenstein's business connections reveals that the world was well supplied with people who found the man a dangerous nuisance.

THE AGE OF SULTAN SÜLEYMAN THE MAGNIFICENT by *Esin Atıl. Abrams, \$45.00.* This generously illustrated volume is essentially a descriptive catalogue of the exhibition of sixteenth-century Turkish treasures now touring the United States. The text requires considerable attention to Turkish terminology. The objects presented are luxurious, exquisitely beautiful, and simultaneously exotic and familiar, because the decorative style developed under Süleyman's patronage was quickly appreciated and copied in Europe and is still influential.

ANOTHER DAY OF LIFE by *Ryszard Kapuściński. Harcourt Brace Jovanovich, \$14.95.* The author is a Polish journalist who in 1975 covered the end of Portuguese rule in Angola. It was a time of chaos and bloodshed, with three Angolan factions competing for control of the country. "There was neither transport nor communications. Solitary little outposts of greenhorn partisans were lost in enormous, treacherous spaces." In spite of the difficulties, Mr. Kapuściński observed the Portuguese exodus from Luanda, a spectacle he makes simultaneously mournful and sardonically funny; traveled about the country; and interviewed a number of officers from the Soviet-backed MPLA. (As a Pole, he could not approach any other group unless he contemplated suicide.) He is a superb reporter, vividly conveying heat, confusion, suspense, and constant fear. He has very little to say about politics.

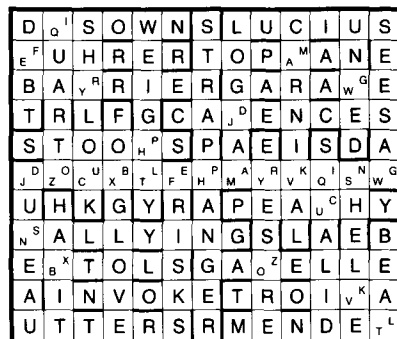
ONCE IN EUROPA by *John Berger. Pantheon, \$14.95.* Mr. Berger continues his studies of life in the French Alps in the form of fiction. The stories in this collection have to do with various forms of love, described with subtlety and delicacy and expressed almost entirely in terms of action. There is no resort to psychological probings or family histories. Mr. Berger's ability to establish his characters as solidly present people makes such devices unnecessary.

—Phoebe-Lou Adams

Answers to the April Puzzles

"CODE PAIRS"

Across. 1. DI(SOW)N 6. LUCIUS (even letters)
10. FUHRER (homophone) 11. TO-PM-AN
12. B(A-R)RIER 13. GAR(b)AGE 15. CADEN-CES
(dance anag.) 16. STOOPS (double def.)
23. PE-ACHY 24. S(ALLY)ING 26. EXTOLS
(anag.) 27. GAZ(ELL)E 28. INV(OK)E (vein
anag.) 29. TR(O)IKA (anag. + o) 30. UTTER-
S 31. MEN-DEL (led rev.) Down. 1. DEB(u)T
2. QUARTZ (homophone) 3. SHY-LOCK
4. WEIGHTY (anag.) 5. S(TRAP)H-ANGER
6. LOG-JAM (maj rev.) 7. CA-R(N)IVAL
8. UN(W)ED (anag. + w) 9. SEESAW (anag.)
14. FO(X)G-LOVE 17. EYESORE (homophone)
18. SQUA(L)ID 19. JUNE-AU 20. F-RISKS
21. SH(oes)-ELVE(s) 22. HA-BIT 25. BE-AT



ACROSTIC NO. 21

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—Leo Rosten, *The Joys of Yiddish*



The Atlantic

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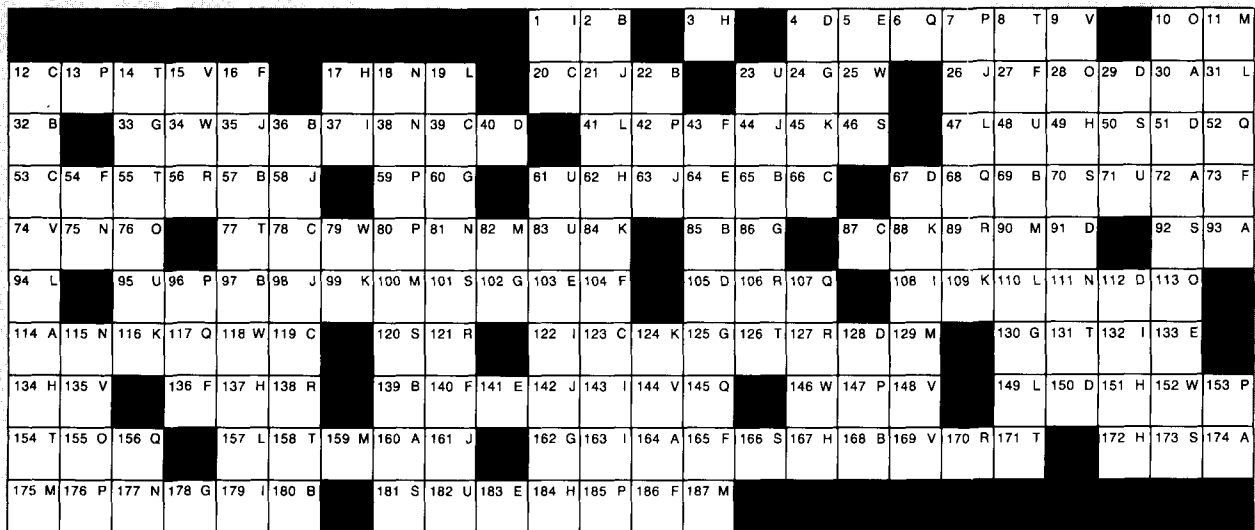
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ACROSTIC No. 22

BY DOROTHY OSBORNE

The letters of clue answers, when put in the appropriately numbered squares, will spell out a quotation. The first letters of clue answers spell the author and source of the quotation.



The solution to Acrostic No. 21 appears on page 95.

- | | | | |
|---|--|---|----------------------------------|
| A. Body lice | 72 30 164 174 93 160 114 | L. Shoofly pie ingredient | 31 149 41 157 47 110 19 94 |
| B. Rapidly (hyph.) | 57 85 97 180 65 69 22 32 139
168 36 2 | M. Genre of the Grateful Dead (2 wds.) | 100 175 11 187 129 82 90 159 |
| C. Burma's chief river | 53 123 12 39 87 78 20 66 119 | N. Quibble | 18 115 111 81 38 177 75 |
| D. Superfluous person or thing (2 wds.) | 4 51 150 29 67 105 91 128 112 40 | O. Syria's president | 155 28 76 10 113 |
| E. Suspended animation | 133 141 64 183 103 5 | P. Cantina snack (2 wds.) | 7 59 153 176 42 96 147 185 13 80 |
| F. Rodgers and Hart musical of 1936 (3 wds.) | 54 104 136 43 27 140 16 73 186 165 | Q. Horse racing's annual award | 145 52 156 68 117 107 6 |
| G. Novel by Djuna Barnes | 86 102 162 24 60 130 178 33 125 | R. Conspirator against Caesar | 127 106 121 56 89 138 170 |
| H. Sudden inundation (2 wds.) | 151 62 3 49 172 167 184 17 137 134 | S. For a very small price (2 wds.) | 46 173 181 101 70 92 166 120 50 |
| I. Cliff-diving locale | 132 179 1 122 143 108 37 163 | T. Constellation near Libra | 14 77 171 154 55 8 131 126 158 |
| J. "Looney Tunes" character (2 wds.) | 142 21 35 63 58 161 98 26 44 | U. Author of <i>The Maine Woods</i> | 23 71 95 83 182 61 48 |
| K. Revered physician of Egypt's Third Dynasty | 109 116 88 124 84 45 99 | V. Anatomical manikin showing muscles and bones | 169 144 135 15 74 9 148 |
| | | W. Suppress; inhibit | 79 146 152 34 118 25 |

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THE PUZZLER

BY EMILY COX AND HENRY RATHVON

PHASES

(Acknowledgments to Trev of *Crossword*)

In this puzzle each clue answer is affected by one of the main phases of the moon.

First Quarter: The answer is entered in the diagram with its first quarter removed.

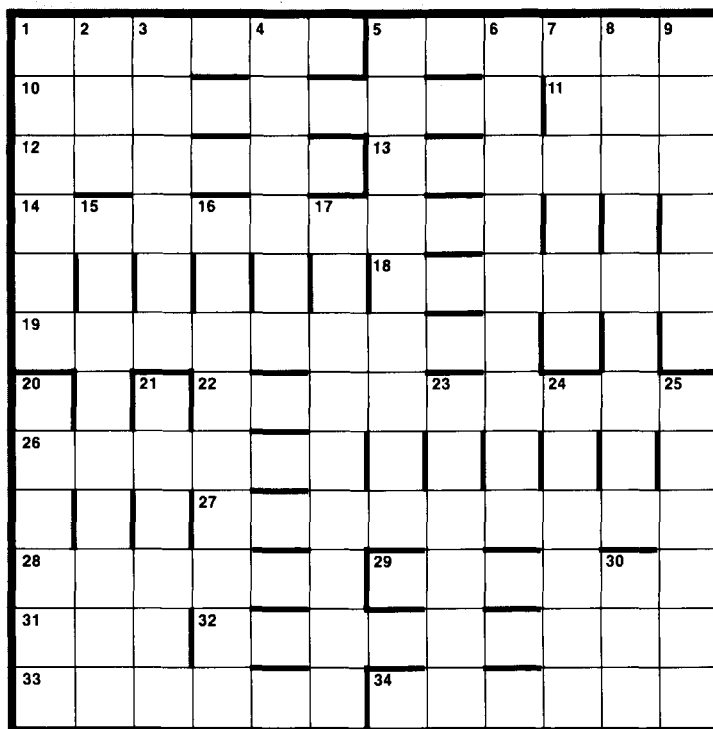
Full: The answer is entered in its entirety.

Last Quarter: The answer is entered with its last quarter removed.

New: An anagram of the answer is entered.

There are nine examples of each type in the puzzle. Clue answers include three proper nouns; 4 Down is uncommon.

*The answers to last month's
Puzzler appear on page 95.*



ACROSS

1. Particles drawn back southeast of the moon by gravity
5. Racing car judge going in reverse around street
10. Battle with a GI company in rough turn
11. Drink "stinger" with dab of rum
12. Keeper of scores gives Margaret Swine 500
13. Jar opens, adding great kitchen item
14. Translation of novel into *Diner*
18. Refusal to bargain, protecting "number one"
19. Hideous ties matched and appraised
22. PBS's introduction of housing for the chief executive
26. Halves of cantaloupe tasted in pieces

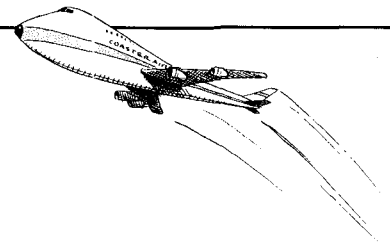
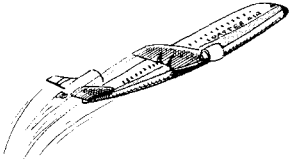
27. Withdrew from grass-covered plot of land
28. Drove Dole to tears
29. Spain's leading couple present ball
31. Somewhat traditional entrance
32. Lacks right label in footwear
33. Put bar drink back in *Cheers*
34. Glittery stuff can go like hotcakes, almost

DOWN

1. Spoil Russian author's upraised symbol
2. Difficulty of rural fellow having no end
3. Give Spanish lady first half of test
4. Keeper of fish is in a certain amount of water
5. Break tried in stage plays

6. Hostile giant's action misconstrued
7. Lady's escort, the Parisian kind
8. Holiday symbol, for example, including flower, for example (*two words*)
9. Looked angry after truncated visit
15. Conductor has to choose baton before Beethoven's Third
16. The man has a great worry about military's first woman chief
17. To notice small and also large fungus
20. A dentist has changes put in office
21. Excuse is feeble about turning tail
23. Pete and I transformed from an effect of the moon (*two words*)
24. Gentries' uncontrolled numbers
25. Latin poems and art treated in guide
30. Returned novel about red bird

Note: The instructions above are for this month's puzzle only. It is assumed that you know how to decipher clues. For a complete introduction to clue-solving, send an addressed, stamped envelope to The Atlantic Puzzler, 8 Arlington Street, Boston, Mass. 02116.



WORD WATCH

BY ANNE H. SOUKHANOV

flyover people *plural noun*, the United States television-viewing population living between the coasts, or, more specifically, New York City and Los Angeles: "Out there among the *flyover people* . . . there may be some poor soul who does not instantly recognize that 'West 57th' is the Manhattan address of CBS News" (*The Wall Street Journal*). BACKGROUND: *Flyover people*, a term of art for those whom the late Bishop Fulton Sheen once characterized as the "meat" between "the crusts on the great American sandwich," is of interest not because it is new but because it is old. According to M. S. ("Bud") Rukeyser, Jr., the executive vice president of NBC, *flyover people* came into use in the 1950s. It never enjoyed widespread use outside the television industry, and its occurrence within the industry today is rare. (An ABC spokesman had never heard the term, but the archives department at CBS News was familiar with it.) We have two recent citations for the word, indicating that *flyover people* may be trying for a lexical comeback. Certainly it is a word to watch, as is *Coaster*, a word for the executive who does the flying over.

glowboy *noun*, a worker who repairs nuclear-power-plant equipment in hazardous areas and is often exposed to very high levels of radiation: "An estimated 5,000 unskilled workers are hired by the [nuclear] industry each year as . . . *glowboys* to repair steam-turbine gener-

ators. They do manual jobs in which a few minutes of exposure puts them at the upper end of radiation limits set by the U.S. Nuclear Regulatory Agency" (*U.S. News & World Report*). BACKGROUND: The few citations that we have for this word indicate that *glowboys* travel from one plant site to another, working on an as-needed basis. Another word for such a worker is *jumper*: "*jumper* . . . is shop-talk for a temporary nuclear worker who hops into a plant's radioactive area and repairs what he can before exceeding his exposure limit to radiation" (Associated Press). Other synonyms are *fresh meat*, *minute-man*, and *radiation sponge*.

populuxe—*adjective*, of or relating to the decade from the mid-1950s to the mid-1960s, a period in which the affluent American middle class spent unprecedented sums on material possessions designed in pretentious poor taste: "In his . . . new book [*Populuxe*], Thomas Hine dubs this period the *populuxe* decade. . . . 'People wanted to be known for their good taste,' writes Mr. Hine, 'but they also wanted to have great showy things that demonstrated that they had arrived. *Populuxe* is vulgar by definition'" (*The New York Times*).—*noun*, the ethos and styles of this decade.

BACKGROUND: This new word evokes images of push-button automatic transmissions and soaring tail fins, tight sheaths and spike heels, corrugated potato chips served with California dip, and split-level houses with Hollywood closets and rumpus rooms. Appropriately enough, *populuxe*—a succinct descriptor of a collage of kitsch—is a portmanteau word, a synthesis of elements derived from the words *populism*, *popularity*, and *luxury*, with the *e* added not from *deluxe*, as might be expected, but merely "to give it class," according to the coiner, Thomas Hine, who is the architecture and design critic at the *Philadelphia Inquirer*. Sprachgefühl, the lexicographer's instinctive feeling for what is linguistically apropos or effective, suggests that *populuxe*, like *art deco*, is here to stay.

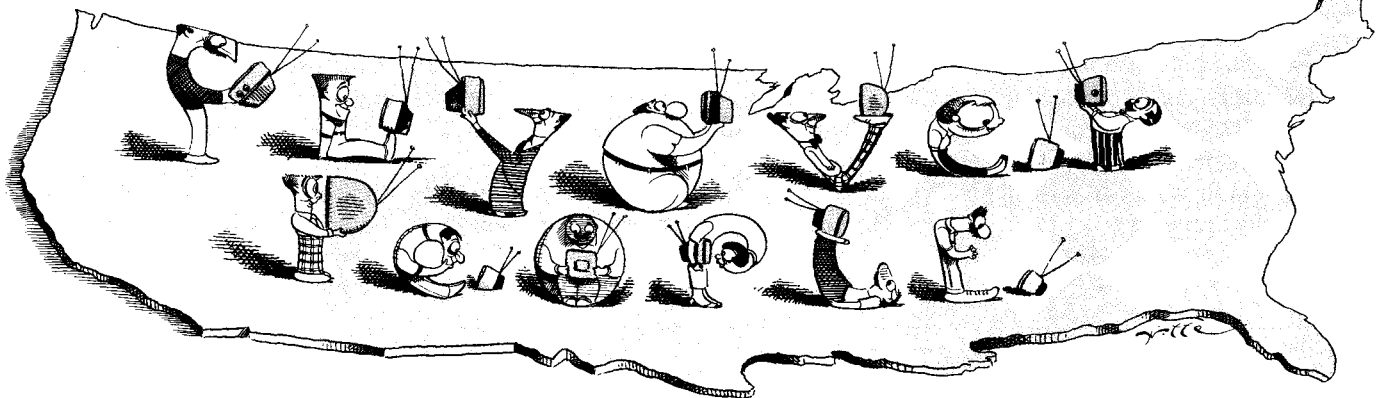
urban forest *noun*, a dense growth of trees and other plants covering an area of a city: "Nationally, *urban forests* are estimated to number in the millions of acres. . . . Only recently have foresters paid much attention to the *urban forest* ecosystems, which can . . . provide a habitat for other plants and animals" (*Valley Advocate*, Amherst, Mass.).

BACKGROUND: According to our most recent citations for *ur-*

ban forest, trees cover about 30 percent of the land in an average city. Worldwide, about 60 to 80 percent of urban land in temperate climes qualifies as forest land. Some of the most heavily forested cities in the United States are Birmingham, Alabama, and Cincinnati, Ohio. New York City has about 4,500 acres of hickory and oak forests, and the Forest Preserve District of Cook County includes 65,000 acres within the city of Chicago itself. With an increase in concern about the health of these forests, a new agent noun, *urban forester*, has emerged.

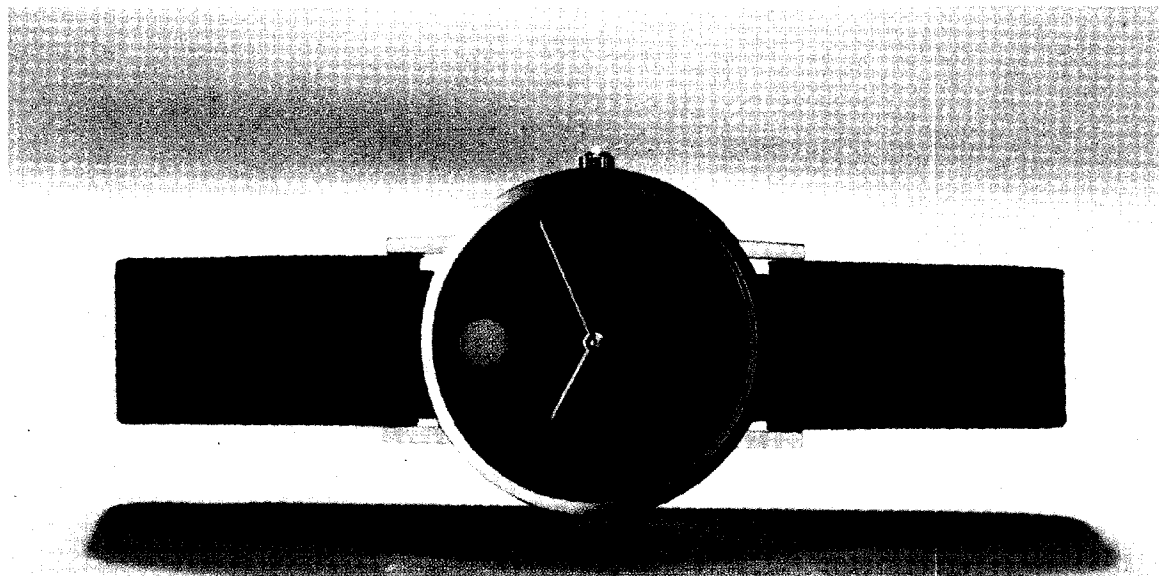
WYSIWYG *acronym*, what you see is what you get. Used to refer to the capability of a computer to screen an accurate rendition of a printed page: "The new version [of a document processor] has page previewing known as WYSIWYG (pronounced wizzy-wig) . . . which displays on the screen a smaller, exact version of what the printed page will look like" (*The New York Times*).

BACKGROUND: This acronym has appeared in sources such as *Fortune*, *The Economist*, and *Financial Times*, as well as in technical publications. Its increased general currency in the past two years is a result of developments in desktop publishing. According to a writer in the February 24, 1986, issue of *InfoWorld*, "WYSIWYG . . . has graduated from buzzword . . . to become an important factor in [this] rapidly expanding market."



As you can remember, Eddie McLaughlin has
"The Tam o' Shanter" by heart.
When he comes into The Cross Keys in
the middle of an evening, he'd be more
likely to recite this piece.
It's twenty-four lines of it.
He'd like to stay that way.





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